

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

Trade-Name Registered in the U. S. Patent Office.

VOL. LVII. No. 13.
WEEKLY.

BALTIMORE, APRIL 7, 1910

\$4.00 A YEAR.
{ SINGLE COPIES, 15 CENTS.

Manufacturers' Record.

PUBLISHED EVERY THURSDAY BY THE
MANUFACTURERS' RECORD PUBLISHING CO.
BALTIMORE.

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New Orleans—1012 Maison Blanche.
New York—52 Broadway.
Boston—643 Old South Building.
Chicago—1116 Fisher Building.
St. Louis—543 Century Building.

Subscription, - - - - - \$4 a year
(payable in advance) to United States,
Mexico, Cuba, Porto Rico, Hawaii and the
Philippines.
To Foreign Countries (including Canada) in
the Postal Union, \$6.50 a year.

[Entered at the Baltimore Postoffice as sec-
ond-class matter.]

BALTIMORE, APRIL 7, 1910.

NO REST FOR THE WEARY.

Quite a lot of messages from the same party to Congress were recently reported among useless documents at Washington. Why, therefore, "A Message to the American People?" And for B'r'er Lyman to take it so seriously! Oh, humor, how many crimes might be committed in thy name!

FOR SCANDINAVIANS.

Announcement by the New Orleans agents of the Norway, Mexico & Gulf Steamship Line, which for a year has been operating between New Orleans and Scandinavian ports, that it will inaugurate an immigration service with three vessels of 5000 tons each is a promise that desirable settlers may enter this country by way of New Orleans. The Scandinavians are of the stock identified with the peoples who originally settled this country from Europe and constituted the great bulk of immigration hitherward until within the last few years. Thousands of them have become prosperous and influential citizens of the Northwest, and there is room and opportunity for many more thousands of them in the South.

INCREASING SOUTHERN BUSINESS OPPORTUNITIES.

The vast range of opportunities in the South for live, aggressive, vigorous men is suggested in the fact that the MANUFACTURERS' RECORD published in March 5136 and in the first three months of the year 13,153 construction items dealing with industrial enterprises of many kinds, with steam and electric railways, with public improvements, including

road work, courthouses, Federal and State buildings; municipal undertakings, such as sewers, water-works, streets, schools, etc.; mineral development and divers building operations. The steady progress of such undertakings is indicated in the advance in the number of items from 3930 in January to 4087 in February, and to 5136 in March. The variety and extent of the news published regarding construction operations in the South are epitomized in the following statistical exhibit:

Synopsis of Construction Department, MANUFACTURERS' RECORD, covering the months of January, February and March, 1910.

Total of Items.....	13,153
Construction.....	10,800
Machinery, Proposals and Supplies Wanted.....	1,906
Burned, etc.....	447
Divided in detail as follows:	
	January. February. March. (3 months.) Total
Bridges, Culverts, Viaducts.....	59 70 97 226
Canning and Packing Plants.....	16 25 23 64
Clayworking Plants.....	19 39 33 91
Coal Mines and Coke Ovens.....	48 44 62 154
Concrete and Cement Plants.....	9 9 8 26
Cotton Compresses and Gins.....	25 19 33 77
Cottonseed-oil Mills.....	10 17 21 48
Drainage and Irrigation Systems.....	18 28 26 72
Electric-light and Power Plants.....	108 101 121 330
Fertilizer Factories.....	13 5 7 25
Flour, Feed and Meal Mills.....	20 18 21 59
Foundry and Machine Plants.....	40 48 62 150
Gas and Oil Developments.....	39 52 69 151
Ice and Cold-storage Plants.....	58 60 41 159
Iron and Steel Plants.....	21 7 6 34
Land Developments.....	65 66 87 218
Lumber-manufacturing Plants.....	98 120 120 338
Metal-working Plants.....	16 5 11 32
Mining.....	64 58 48 170
Miscellaneous Construction Work.....	24 25 36 85
Miscellaneous Enterprises.....	229 196 213 638
Miscellaneous Manufacturing Plants.....	265 228 246 739
Railway Shops, Terminals, Roundhouses, etc.....	22 20 33 75
Road and Street Improvements.....	109 146 188 443
Sewer Construction.....	70 78 88 236
Telephone Systems.....	33 30 54 117
Textile Mills.....	53 47 55 155
Water-works.....	87 114 136 337
Woodworking Plants.....	71 76 78 225
Railways.....	252 312 338 902
Street.....	44 31 38 113
Buildings.....	57 60 69 186
Apartment-houses.....	97 93 148 338
Banks and Offices.....	107 128 153 388
Churches.....	30 15 28 73
Courthouses.....	229 249 459 937
Dwellings.....	24 17 33 74
Government and State.....	45 80 99 224
Hotels.....	269 246 434 949
Miscellaneous Structures.....	52 48 80 180
Municipal.....	37 32 46 115
Railway Stations.....	152 198 260 610
Schools.....	25 30 28 83
Theaters.....	45 55 67 167
Warehouses.....	174 116 155 445
Burned.....	1 1 2 4
Damaged by Storm.....	1 1 2 4
Machinery, Proposals and Supplies Wanted.....	591 628 687 1906
	3930 4087 5136 13,153

The list of "Machinery, Proposals and Supplies Wanted" contains 42 foreign wants, the countries represented including China, Turkey, India, Italy, England, Austria-Hungary, France, Holland, Australia, Mexico, Argentina, Uruguay, Guatemala, Porto Rico and Cuba.

The list of "Machinery, Proposals and Supplies Wanted" increased from 591 in January to 628 in February and to 687 in March, a total of 1906. Every one of these items was based upon a specific request to the MANUFACTURERS' RECORD for definite information on the subject mentioned, and that 42 of these requests came from China, Turkey, India, Italy, England, Austria-Hungary, France, Holland, Australia, Mexico, Chile, Argentina, Uruguay, Guatemala, Porto Rico and Cuba emphasizes the wide reading which the MANUFACTURERS' RECORD has in foreign lands.

These statistics do not imply that each of the 13,153 items published deals with an entirely new enterprise or the enlargement of existing operations. For, in many cases, there have been several mentions of the same undertaking, each mention, however, setting forth additional facts in regard to it. The grand total, though, throws

strong light upon the vast development and construction work in the South, which is covered day by day in our *Daily Bulletin* and week by week in the *MANUFACTURERS' RECORD*.

The mere skeleton of the facts appeals strongly to men who sell machinery, build bridges, viaducts and highways, open coal, iron ore and other mineral resources, build clay-working plants, textile mills, fertilizer factories, iron and steel plants, lumber mills and woodworking plants of all kinds, re-

Roads Association, designed to induce co-operation in the movement to give farmers of the Southwest better transportation facilities. Preliminary to this organization the members of the party determined to make a full report of the trip. This has taken the form of an attractively illustrated volume, entitled "Good Roads Party from States of Arkansas, Oklahoma, Louisiana and Texas on Tour of Inspection Through Eastern States." The book contains the story of no mere pleasure jaunt, though the trip was an enjoyment from beginning to end. It carries through its pages the practical idea set forth by Mr. Yoakum at the Shawnee meeting of the Oklahoma Farmers' Union that there is no work more important than the building of public roads in such a manner that they will be permanent and may be maintained economically. In separate chapters are discussed in detail the question of roads in this country and abroad, the methods and results of road-building in New Jersey, New Hampshire, Massachusetts, Rhode Island, Connecticut and New York; the importance of drainage, the economies of good roads, the relation of a problem to the National Grange, the history of road-making and an exposition of sample roads built in the Southwest. In conclusion, the delegation discusses the needs and the opportunities for road improvement in its section, and urges the farmers to support actively the building of public highways under a system of State aid and supervision, and argues that the availability of splendid road-building materials, including asphaltic oil for the prevention of erosion and dust, should develop in the Southwest under such a supervision a system of public highways second to none in the world. Very true, and in many localities in these Southwestern States good road-construction is being pushed enthusiastically, liberally and practically. That is one of the reasons why that section is making such notable material progress.

SOUTHERN WATER-POWER DEVELOPMENT.

At a cost of between \$50,000,000 and \$100,000,000 about 1,000,000 horse-power hydro-electrical development has been made in the South. Many other development enterprises for the utilization of water-powers are now being made in this section, including the extensive operations near Chattanooga, others near Columbus, Macon and a large number of points in the Piedmont region tributary to Charlotte, and at various places throughout the South.

It was doubtless because of the fact that the South has become one of the greatest and most interesting of the four great electrification areas in America, as stated in the address of President Louis S. Stilwell of the American Institute of Electrical Engineers that that organization held its meeting last week at Charlotte.

While the remarkable hydro-electrical development work throughout the

claim waste lands through irrigation or drainage, build and equip railways and participate in municipal and State permanent improvements. The 13,153 items appeal strongly, too, to men who understand that every new enterprise means more employment for a greater number of producers of all kinds and greater activity for the workers of the country, whether in factory, in office, in foundry, in machine shop, in mill, in the forest, in the field and in the mine.

FOR GOOD ROADS.

One of the greatest spurs ever given to the movement for improved highways in the Southwest was the trip made last fall by representatives of the Farmers' Union of Arkansas, Oklahoma, Louisiana and Texas, as the guests of Mr. B. F. Yoakum, to study road construction in the East. The trip occupied two weeks, and resulted in the organization of the Southwestern Good

central South has commanded the attention of the electrical engineers of the world, affording the visitors to last week's meeting an exceptional opportunity of studying what the South has done, this meeting in Charlotte, bringing into this section 300 or 400 of the leaders in electrical development, coming from all parts of the country, ought to prove of very great advantage to the South. Men who have heard of the South and of its hydro-electrical development without ever having had the opportunity of studying it in person, had the chance last week of seeing for themselves something of the resources and attractions of this section. In this way this convention will prove of very great value not only to the South, but to the whole electrical industry of the country.

The use of Southern water-powers in industry dates back to the early days of manufacturing in that section and to the time of the catalan forges and the primitive cotton mills, the flour mills and the grist mills. Interruption by the war of the South's industrial advancement accounted for its comparative slowness in turning from water-power to steam in its textile operations. But it quickly caught up with the rest of the country in that particular after its energies had been again released. Now, in this era of the utilization of running streams for the generation of electric force for manufacturing, the South offers one of the most inviting fields in the world for the engineer and the investor. About one million horsepower has already been developed, and probably one-tenth of that power is used in the textile industry within a radius of a hundred miles of Charlotte.

The formal papers offered the Institute, which has a membership of about 6500, bore in part upon hydro-electric problems, and, of course, dealt especially with facts about the Carolina-Piedmont region. But the main point, perhaps, about the gathering was that it tended to focus attention upon the electric possibilities of the South. These were emphasized by the visit of the three hundred or four hundred attendants upon the meeting to local industrial plants and to the developments of water-power completed or underway in the Catawba River—nearly a dozen water-powers. In connection with this meeting of the American Institute of Electrical Engineers, will be read with interest special correspondence from Columbus, Ga., published elsewhere in this issue of the MANUFACTURERS' RECORD, sketching the progress made in harnessing the power of the Chattahoochee River, one of the great sources of industrial power in the Piedmont South.

PEOPLE WHO WANT TO BE ON THE FREE LIST.

The MANUFACTURERS' RECORD is in receipt of a letter from one of the leading State universities of the West in which it is said that the university has undertaken to establish a department for the training of young men intending to enter business pursuits, and that recognizing the importance of an acquaintanceship with the best trade journals, and yet not being able to subscribe for them, the university requests that they be sent without cost in the interest of the development of higher business education. Somewhat similar letters are constantly being received by this paper and doubtless by other leading industrial and technical publications. Just why college officials should feel justified in asking that newspapers be

sent to them without cost, unless they make similar requests of the publishers of textbooks, we are not able to fathom. Perchance it may be that college officials know that book publishers are very rigid in their rules and are never supposed to even consider supplying colleges with their textbooks, while newspaper publishers are supposed to be so much more interested in the advancement of humanity and in the development of higher education as to be willing to give the results of all their labor and expense without cost. If this is the viewpoint from which they are regarded, this is a tribute to newspaper publishers. Or it may be that, judging by the actions of some of them in the past, newspaper publishers have given the public the right to believe that they are "suckers," easily caught and willing to give away their work merely for the honor of having somebody extend such an invitation to them. This phase of public sentiment is illustrated in a letter received a few days ago—a sample, by the way, of a good many that come to all publishers—in which a large business house stated that it made a rule never to pay for a trade publication, but that it would be glad to be put on the free list with the possibility that in the future it might send some advertising. The MANUFACTURERS' RECORD is not engaged in this kind of business. The merchant or manufacturer who desires the MANUFACTURERS' RECORD must pay for it exactly as he pays for his local daily paper. The time has long since passed when reputable publishers are caught by the old gag of promising advertising some time in the distant future provided they send the paper without cost for a few years in order to permit a study of its merits. It would be as appropriate for the MANUFACTURERS' RECORD to suggest to the makers of printing presses that it would be glad to receive a press without cost in order to use it a year or two and then, if satisfactory, perchance an order might be given for its purchase. The time has come when publishers should stand rigidly for a proper recognition of the value of their work and of the fact that subscribers are not wanted simply for the purpose of swelling the subscription lists, and are wanted only on the strictly business basis of the value to the individual subscriber of a publication. It is quality, not quantity, that counts. It is readers, not simply subscribers, who are wanted by reputable newspapers.

MILL MEN AND PHILANTHROPY.

In a recent interview with the Augusta (Ga.) Chronicle Thomas R. Dawley, Jr., who has spent two years in investigating conditions of the employment of minors in the South, is quoted as follows in reference to false reports about such conditions:

The cotton mills of the South are not only being misrepresented, but they are actually misrepresenting themselves by allowing such statements as those spread broadcast over the world to go by undisputed. I don't know why they have permitted these things to go unchallenged; except that the cotton-mill men of the South are a business and not a literary people, and that in their own way they have been going about their settlement work and providing in their own way for bettered conditions among their people.

Mr. Dawley almost answered his own question when he stated that so-called philanthropist undertakings that had been occupied in the matter of Southern "child labor" are philanthropists only in that they are finding a purpose for spending somebody else's

money in order that they themselves may draw salaries. Without salaries paid directly in agitation of this question, or obtained in other activities financed from the same quarters, there never would have been any occasion for comments such as those of Mr. Dawley. The beginning of the campaign on divers lines in the South marked the beginning of a vast expansion in organization for social "uplift" work, the most notable result of which has been the uplifting into positions of income without productive work of a great crew of parasites upon the public posing as specialists in philanthropy. These poseurs for profit caught the material interests of the South unawares. The latter had never learned to unite against an organized drive against them, simply because they had never imagined that such a drive would be made upon pretexts appealing ostensibly to the noblest instincts. Nor could they have imagined that the country was able to produce in such short order as big a crop of astute lying or presumptive ignorance as the divers philanthropies of the twentieth century have brought to the front. Moreover, and more particularly, their assailants made the attack from behind the refuge of women's skirts, as it were, and consequently men were barred from meeting the onslaught with any degree of vigor. That is all.

JIM HILL ON RAILROAD REQUIREMENTS.

President James J. Hill of the Great Northern Railroad, familiarly known as "Jim" Hill, because people generally feel well enough acquainted with him to style him thus, has uttered another of his characteristic predictions about the future of our transportation systems. This time the burden of his speech, is track facilities, particularly respecting sidings and terminals, remarking, by the way, that the roads just now have more than enough cars and engines, but that if nearly \$10,000,000,000 are not spent within the next six years for more sidetracks and for enlarging junctions and terminals, there will occur the greatest congestion of traffic which our railroads will have ever experienced.

Mr. Hill was in New York the other day when he shot out with something like a bang the particular expression of opinion of which the preceding paragraph embodies a graphic outline. He has a way of saying things which makes folks sit up and take notice, turning their attention for a while from their plans for money-making, from their dinners, their friends and their automobiles, from the opera and other diversions. For the time he is what slangy reporters style "the big noise"; even the cablegrams from Egypt, from Italy and elsewhere along the itinerary of another noted American personage are forgotten while he holds the center of the stage, shaking his mane and voicing warnings which are worth hearing and worth while.

Undoubtedly he has hit another nail a smart lick on the head, driving it well toward home, when he says that the capacity of our railroads for moving trains and for loading and unloading freight and passengers must be vastly increased. His estimate is that \$1,000,000,000 a year must be spent for half a dozen years to put the lines in fit condition to satisfactorily handle the traffic of the future merely emphasizes what the MANUFACTURERS' RECORD has been saying for three or four years. He quotes figures from the Interstate

Commerce Commission reports to substantiate his argument, noting that in the ten years between 1897 and 1907 the number of tons of freight moved one mile by our railroads increased 148 per cent., and the number of passengers transported one mile gained 126 per cent.

But there is ample evidence to refute Mr. Hill's statement about more than enough cars and engines now being in service. It may be that is true with respect to his "neck of the woods"—the grain-raising regions of the Northwest—for he is quoted as saying that any one of the half dozen big western roads owns at present sufficient cars to move its share of the country's crops in three round trips, but that months are required to do this work, owing to cramped terminals and insufficient sidetracks, yet it can hardly be true with respect to such lines as the Pennsylvania, the Baltimore & Ohio, the Southern and other prominent roads, which, as recently published in the MANUFACTURERS' RECORD, are placing large orders for equipment in addition to contracts awarded last year. It is not probable that such experienced railroad managers as McCrea, Willard and Finley can all be wrong in buying more motive power and cars, while Hill alone is right in declaring against further purchases of rolling stock at this time. Generalizing is a dangerous thing in public utterances, and Mr. Hill has made a mistake in putting forth an expression with respect to the entire transportation system of this country when it is apparent that it accurately applies to only part of it. Recent official figures show only a small excess of cars over the shortage for all the railroads, but in the East and the eastern part of the Middle West the surplus of cars is less than 4300, while the shortage is more than 12,600.

Yet, President Hill is perfectly correct in his chief contention, and advice from such a high authority merits full and careful consideration, not only by railroad managers, but by the public at large and its political representatives. If the companies are to make provision to fulfil their obligation to the people, everyone concerned must co-operate to bring about conditions most favorable to the desired end; it goes without saying that clashing of interests will hinder and maybe prevent the accomplishment of results adequate to the future needs of business. Some of the roads are already working strenuously along the line pointed out by him, and the great operating capacity of the Cincinnati, New Orleans & Texas Pacific Railway, which constitutes the northern end of the Queen & Crescent Route, instances what can be accomplished by the application of improved methods to a line that was until a comparatively late period little, if any, better than its fellows among single-track roads. Judicious addition to trackage facilities and the installation of superior signalling and dispatching arrangements have effected wonderful changes in operating capacity.

With reference to the operating needs of railroads, Mr. Hill accurately lays down the dictum that when a railroad is moving at all times all the cars it can handle over its tracks with safety and can transfer and dispatch them at junctions and terminals without unreasonable delay, any increase of business beyond that amount cannot be handled by increasing the number of cars and engines. In that summing up there is plenty of food for thought, reflection and action. Doubtless more of

our roads will look after the enlargement and betterment of their terminal, junction and siding facilities. Much remains to be done.

RECLAIMING MISSOURI LANDS.

For several months Deputy Labor Commissioner John H. Nolen of Missouri has been making a special study of methods of reclaiming swamp and overflowed lands and of preventing flood damages in the State. The results of his investigations are to be embodied in a bulletin which will no doubt not only attract wide attention in Missouri, but also be found of value to everybody interested in the work of bringing to agriculture the millions of acres of wet lands in the South that can be reclaimed. Mr. Nolen points out that there are about 1,000,000 acres of land in the valleys of the Missouri and the Mississippi in the State subject to periodical overflows which, with an expenditure of a sum of money less than the loss by any one year's overflow, may be protected for all time. Much of this land is regularly cultivated, but it has the drawback of liability to overflow every three or four years.

What may be accomplished is suggested by what already has been done in this direction. Mr. Nolen says that landowners on the Illinois side of the Mississippi have reclaimed by leveeing a large portion of bottom-land between Warsaw and Cairo, and turned it into fertile fields yielding annually abundant crops of cereals and grasses. At an original cost of \$80,000, about 20,000 acres of land in the Kings Lake district, in Lincoln county, Missouri, have been protected by a levee sixteen miles long, and lands that were worth a few years ago from \$16 to \$24 an acre are now bringing at least three times those prices. One of the largest owners of land in this district is quoted as follows:

We own 1625 acres of land inside of the district that has corn on it now (October 22, 1909) that will make anywhere from 50 to 75 bushels per acre. This same land would at least have had four feet of water on it this year had there been no levee. The same situation would have been true for the last three years. It does not take a banker to figure out whether or not it would pay to levee land, as any man with ordinary sense ought to plainly see to keep water off of his bottom land will pay in crop rents from \$5 to \$10 per acre each year. There is no question in my mind as to whether a levee can be made strong enough to withstand the high waters, as the black, sticky dirt in this and St. Charles county will not allow water to seep through it. The dirt, when formed into a levee, holds like a jug."

Another levee, completed at a cost of \$25,000 in 1895, protects 3444 acres of land in the Copangris district, in the same county. Only once in fifteen years has the levee, which is seven miles long, proved inadequate, and the land has more than doubled in value. About 10,000 acres of land in the South River district, in Marion county, has been protected at a cost of \$160,000, and is to be still farther bettered by a pumping system, which is being installed at a cost of \$40,000. Here the land has trebled in value in the past five years, and much of it is producing good crops.

Mr. Nolen estimates that the cost of constructing levees to withstand the most severe floods will not average more than \$12 an acre, and that the loss per acre by flood averages not less than \$20. It is simple bookkeeping to prove the economy of leveeing, and in favoring a bond issue to meet the expenses. Mr. Nolen estimates that the annual assessment necessary to pay off bonded debts will equal not more than 1 per cent. on \$125, the average value per acre of

alluvial overflow land and its annual crops; that this special tax will cease in about twelve years, and that thereafter the protection will be afforded free of cost.

Dr. M. Eugene Street, Glendon, N. C., writes to the MANUFACTURERS' RECORD:

The general circulation and reading of the MANUFACTURERS' RECORD among the people of the South would be worth to the South more than any other one thing I know of.

PROFITABLE FARMING.

In illustration of the possibilities in farming on lands along the route of the Atlanta, Birmingham & Atlantic Railroad, W. H. Leahy, general passenger agent of the road, Atlanta, is circulating a folder making interesting comparison of the results in 1908 and 1909 of the operations of a 1200-acre farm of J. S. Byrom & Sons at Byromville, Dooley county, Georgia. In 1908 produce was sold to the value of \$8740.98, with \$3009.50 on hand, a total of \$11,840.48. In 1909 there was an increase of \$7233.40 in production in spite of the fact that 66 bales of cotton were sold in the early part of the season before the top prices prevailed. The grand total in 1909 was \$19,073.88, and the wide range of products is indicated in the following table:

Products Sold.	
66 bales cotton.....	\$2,231 37
4815 1/2 bushels oats.....	3,129 91
92 3/4 bushels rye.....	494 71
297 bushels corn.....	296 60
78 tons oat straw.....	316 76
7 1/2 tons rye straw.....	129 08
121 1/2 tons hay.....	1,944 09
10,100 pounds pork.....	1,009 15
3940 pounds beef.....	193 91
320 crates peaches.....	661 02
1400 gallons milk.....	431 22
11,307 pounds cabbage.....	248 60
555 1/2 gallons syrup.....	242 55
200 bushels sweet potatoes.....	120 00
2 cars melons.....	92 50
1461 stalks cane.....	32 26
5 bushels peanuts.....	20 56
7230 cabbage plants.....	12 96
16 crates canteloupes.....	9 53
100 pounds onions.....	2 00
2 1/2 bushels Irish potatoes.....	2 38
1 load of chaff oats.....	1 04
2455 bushels cottonseed.....	662 94
Wood.....	210 90
Total produce sold.....	\$12,489 58

On Hand at Close of Business December 31.

21 head cattle.....	\$440 00
125 fat hogs in pen.....	1,250 00
34 stock hogs.....	417 50
93 bushels cottonseed.....	116 80
40 bushels ground peas.....	40 00
10 pounds melon seed.....	5 00
10 tons sheaf oats.....	200 00
17 tons hay and stover.....	285 00
2600 bushels corn.....	1,600 00
5000 stalks seed cane.....	50 00
50 loads manure.....	50 00
15 bushels field peas.....	15 00
5 bushels rye.....	10 00
200 bushels sweet potatoes.....	100 00
160 acres oats.....	1,280 00
20 acres wheat.....	160 00
75 acres rye.....	625 00
3 acres cabbage.....	30 00
Total.....	\$6,574 30

APPALACHIAN ROADS.

Representatives of the highland counties of North Carolina, South Carolina and Tennessee attended the meeting last week at Hendersonville, N. C., under the auspices of the Southern Appalachian Good Roads Association, to further the definite plans for first-class highways from Charlotte to Knoxville, from Greenville to Asheville and from Spartanburg to Asheville, making accessible some of the most picturesque portions of America. Resolutions were adopted urging the States interested to provide for adequate road engineering in all the counties for the construction of roads and bridges and recommending that each State should appropriate at least \$250,000 annually, to be apportioned among the counties according to the amounts to be raised by the counties themselves.

WEST VIRGINIA APPLES.

The report of the West Virginia State Board of Agriculture for the quarter ended March 31 contains the record of the proceedings of the annual meeting of the State Horticultural Society. An inter-

esting feature of the report is a large number of illustrations of the steadily growing apple industry of the State. Referring to one of the illustrations, the report says:

"The Berkeley County Horticultural Society held a two-days' Apple Carnival at Martinsburg November 4 and 5. This view shows a portion of the fine display of high-class fruit exhibited. West Virginia can produce as fine-looking fruit as any of the Western States and of a much higher quality. It would be hard to estimate the value to the State which this carnival has been in an advertising way."

Recognition of the possibilities for apple-growing in West Virginia led the MANUFACTURERS' RECORD to send a representative to Martinsburg at the time of the carnival to describe the exhibit then made.

RIGHT ENDOWMENT.

The new building of Coker College, Hartsville, S. C., was opened last month. It was the gift of Major J. L. Coker, and the opening ceremony included the announcement that in addition to the \$26,000 given by him for the building, Major Coker had given \$150,000 for the endowment of the college, said to be the largest sum of money ever contributed by one citizen to the cause of education in the State. Such a gift should be an inspiration to other Southern men. It is to the successful business men of their section that the colleges of Southern States have the right to look for such endowment. Seeking funds from such sources as the General Education Board of New York is the veriest beggary, no matter what the conditions may or may not be.

THE COTTON MOVEMENT.

According to Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight in the first seven months of the present season was 9,122,936 bales, a decrease under the same period last season of 2,819,095 bales. The exports were 4,951,732 bales, a decrease, less 2917 bales returned from abroad, of 2,049,451 bales. The takings were, by Northern spinners, 1,725,384 bales, a decrease of 509,412 bales; by Southern spinners, 1,671,096 bales, a decrease of 35,627 bales.

WANT INFORMATION ABOUT THE SOUTH.

From letters of inquiry about the South received by the MANUFACTURERS' RECORD the following extracts are made in order that business organizations, railroads and others may get in communication with these people or send them literature about different communities:

John Selleck, Monticello, N. Y., wants to know of a good location in the South for the artesian well-boring business.

H. B. Fields, 470 Belmont avenue, Springfield, Mass., wants to know of business opportunities, especially in manufacturing in the South.

Chas. B. James, 141 Green street, New Haven, Conn., senior in Yale Law School, desires to locate in the South, and seeks information as to a desirable location.

Jos. W. Greer, 162 West 84th street, New York, N. Y., wants information about wheat lands in the Shenandoah Valley of Virginia.

W. H. Craver, secretary, First Trust Co., St. Joseph, Mo., desires information about the South.

William Bright, real estate, Dollar Bank Building, Youngstown, O., seeks literature pertaining to the South.

John H. Smith, Monticello, N. Y., writes: "This is a cold country. I learn from time to time of people tiring of the long winters and radical changes in tem-

perature. It is common to have 40 degrees change in 24 hours. Our winters set in in November and last until May. Farmers cannot plow before the middle of May or farm until the latter part of May or early June. I should think if the advantages of the South were brought to their notice they would look into the matter. I think Mr. Walter Durham and Mr. John Selleck of this place will both make a change."

J. S. Bonebrake, postmaster at Montross, Va., wants information about Florida and Texas, and especially the most promising sections of these States for settlement.

W. O. King, 9 Lathrop Hall, Columbia, Mo., seeks information about the South.

C. B. Hollinger, 6627 Hegerman street, Tacony, Pa., seeks information about climate, rainfall and general agricultural conditions in Manatee county, Florida.

R. A. Wainwright, vice-president Real Estate, Trust & Insurance Co., Norfolk, Va., writes that his company desires to learn of any railroad proposition that can be secured for financing. He says: "We are representing foreign money, and would like something to run from \$2,500,000 to \$5,000,000, or possibly a little larger."

MEETING AT JACKSONVILLE.

The Southern Supply and Machinery Dealers' Association.

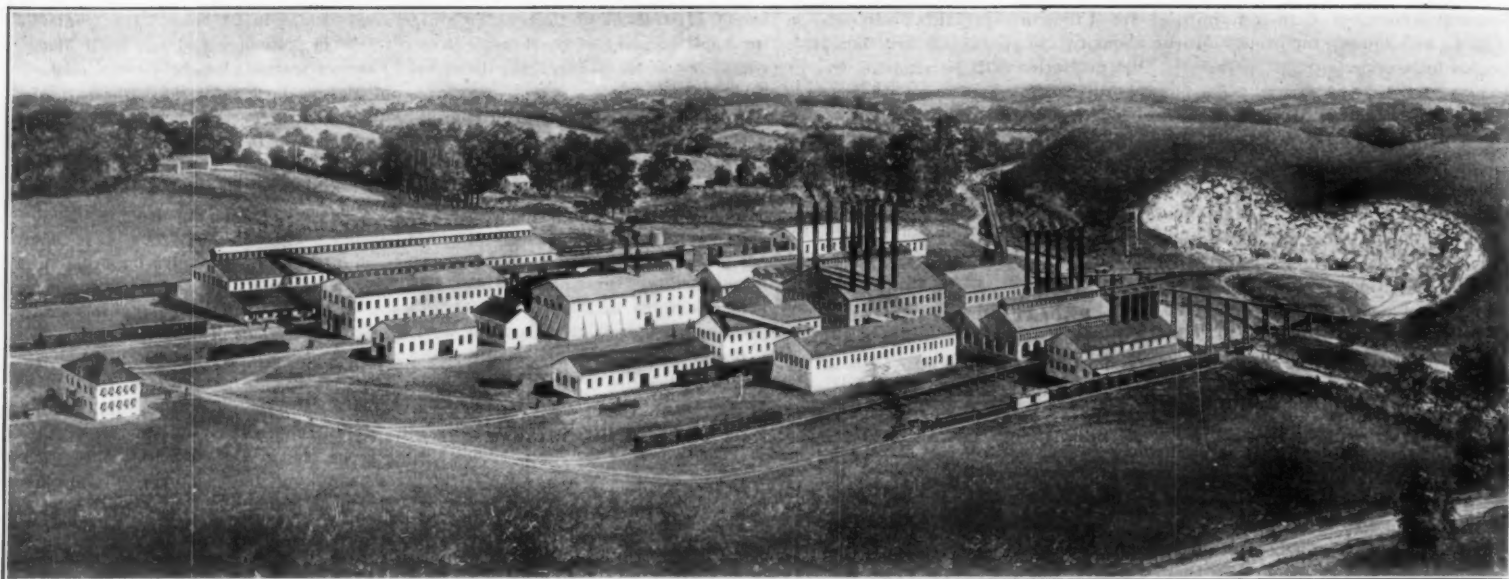
The program of this week's annual meeting at Jacksonville, Fla., of the Southern Supply and Machinery Dealers' Association includes, in addition to reports of special committees and other routine business, addresses by President H. C. Clark of the Southern Supply and Machinery Dealers' Association, and President John Trix of the American Supply and Machinery Manufacturers' Association; papers by E. Howard Smith, vice-president and general manager of the Superior Supply Co., Bluefield, W. Va., on the employment of salesmen on commission or on a profit-sharing basis; by W. P. Simpson of the C. T. Patterson Company, New Orleans, on the advantages that have been derived by the adoption of resale prices and their support by the jobbers, and by N. A. Gladding, vice-president of the E. C. Atkins Company, Indianapolis, on practical results of the adoption of resale prices, and discussions of the benefits to be derived from local organization, of representation by manufacturers in dealers' catalogues, of the mutual obligations of manufacturers and dealers under exclusive agency agreements, and of other topics.

The local entertainment committee, Mr. John G. Christopher of the J. G. Christopher Company, chairman, arranged diversion for the visitors, including a smoker tendered by the Board of Trade, a banquet, a luncheon for the ladies and a boat trip on the St. Johns River.

Drainage.

Mr. John Seip, secretary of the Carolina Land & Lumber Co., Moyock, N. C., in reporting to the MANUFACTURERS' RECORD that the contract for dredging 733,000 yards in the Moyock drainage district had been awarded to the American Steel Dredge Co. of Fort Wayne, Ind., adds:

"We own 12,000 acres in the district, which it is our intention to put in condition for farming as soon as the main canals are completed. We intend also to establish an up-to-date experimental or demonstration farm for the reason that we believe that the fertile soil of the Dismal Swamp will grow profitably things that are not dreamt of today. There is no soil better adapted to corn, potatoes, onions and celery than the black soil of this region."



PROPOSED PLANT OF TIDEWATER PORTLAND CEMENT CO. AT UNION BRIDGE, MD.; DAILY CAPACITY, 3000 BARRELS CEMENT.

Tidewater Portland Cement Co.

With the increasing use of Portland cement in construction work comes the demand for greater quantities of that material. Various plants of the South are assisting to meet the demand, and that section will soon have another Portland cement plant, that of the Tidewater Portland Cement Co. This company organized with a capital stock of \$4,000,000 and a bond issue of \$1,750,000 to build at Union Bridge, Md., where extensive deposits of limestone and shale have been secured contiguous to the plant site on the Western Maryland Railroad, 45 miles from Baltimore. Herewith is an illustration of the plant as it will appear when completed.

The plant buildings will be fireproof, of steel and concrete construction, as follows: Crusher, 76x74 feet; kiln, 224x122 feet; stone storage, 17x76 feet; raw mill, 96x60 feet; coal mill, 96x50 feet; stockhouse, 256x144 feet; packing-house, 114x64 feet; power-house, 128x60 feet; coal storage, 80x64 feet; clinker mill and gypsum-house, 144x60 feet; boiler-house, 128x48 feet. Other buildings will include machine, carpenter and blacksmith shops, storage-house, etc. The machinery will include crushers, pulverizers, kilns, etc., electrically driven, for a daily output of 2500 barrels of gray Portland cement and 500 barrels of white Portland cement.

The company's engineer in charge is the Fuller Engineering Co. of Allentown, Pa., and the general offices are at 115 Broadway, New York; sales offices at 807 Keyser Building, Baltimore, R. N. Soper being manager of the sales department.

The officers are: President, John K. Tener, president of First National Bank of Charleroi, Pa.; vice-president, Jos. T. Fanning, president of Republic Finance Co., 115 Broadway, New York; secretary, Owen B. Murphy, New York; treasurer, E. D. Newman, president of Shenandoah National Bank, Woodstock, Va.

The company will also market hydrated lime, and its lime plant has been completed; daily output, 800 barrels. Referring to its hydrated lime, the company says: "Those who have studied the subject realize the advantage of the addition of hydrated lime to all cement mortars and concrete mixtures, and its sale has increased to such an extent that many leading lime manufacturing companies have installed hydrated lime plants. Our lime is made of the highest grade limestone and hydrated immediately upon coming from the kilns. The lime plant is adjacent to the quarries, so that by gravity the trucks loaded with stone run out of the quarry to the foot of a long incline, where they are

picked up by a cable, operated automatically, and are drawn to the top of the kilns. After burning, the lime is drawn off and cooled. The portion for the hydrator is carried direct to the crusher, and thence automatically through the entire hydrating operation to the sacking machine for packing in 40-pound paper bags or 100-pound cloth bags.

"The plant is compact; there is no waste space; cars are set within 30 feet of the kilns and the bulk lime for shipment is loaded directly into them. An elevated coal track on the opposite side of the kilns makes it possible to dump all cars, and permits handling coal by elevators. There is a cooperage shop to make the barrels used in shipments. In the quarry is stored a large amount of snow-white limestone, a great supply piled on top of the earth, along the side of a stream supplying enough water for a manufacturing plant of ten times the magnitude of ours. Adjacent to the stone quarry is the shale quarry. With all the raw materials at hand in sufficient quantities, plenty of power and modern buildings and machinery, we are in a position to produce a maximum quality of lime and cement at a minimum cost."

OHIO VALLEY EXPOSITION.

A Plan to Have the South Represented in It.

Editor Manufacturers' Record:

I have been waiting until matters assumed definite shape before writing you in regard to the proposed Ohio Valley Exposition, and particularly that part of it which relates to the exploitation of the South.

The MANUFACTURERS' RECORD is recognized as one of the most important factors in this development, and I am sure you will find the following of interest:

On Thursday, March 31, there was held in Cincinnati a second meeting of the industrial representatives of railroads south of the Ohio and Potomac rivers and east of the Mississippi River to consider the best method for carrying out plans for exploiting the Southern States. With few exceptions all the roads were represented, and several representatives who could not be personally in attendance authorized definite action by letter or wire.

The Ohio Valley Exposition will open in Cincinnati August 29 and continue until September 24. The permanent exposition buildings will be used and such additional buildings will be constructed as may be found necessary or advisable.

The committee on the South and its resources, of which I have the honor to be

chairman, is made up, on my suggestion, of the officials and industrial representatives of the Southern roads, and, believing that this is one of the most important opportunities to advertise the commercial possibilities of the South in a dignified way, the committee has agreed that a united exhibit will be made in which each railroad will join and by which every feature and locality of the South will be given full representation.

The exposition board of directors has, at considerable sacrifice, turned over to our committee about 21,000 square feet of floor space on the second story of the north hall. This is all in one area, and the decoration and general assembling of exhibits can, therefore, be conducted with impressive effect.

An executive committee of this general committee was selected, consisting of G. A. Park (chairman), general immigration and industrial agent Louisville & Nashville Railroad; F. Y. Anderson, land commissioner Queen & Crescent Route; J. C. Clair, industrial commissioner Illinois Central Railroad; J. W. White, general industrial agent Seaboard Air Line; M. V. Richards, land and industrial agent Southern Railway—these gentlemen being designated "associate chairmen."

Mr. G. F. Greene has been appointed superintendent of exhibits, and yesterday spent some time in Cincinnati outlining his plans.

The committee considered two plans, one to permit the individual roads to make individual exhibits and the other for every railroad to unite in forming a general exhibit which would be compact and forcible.

It developed in the discussion that any plan which would result in separate exhibits by individual roads would result in duplication, and that very probably some of the most interesting features of the new South would be overlooked, owing to the inability of the smaller roads to stand the expense. It was, therefore, decided that a general exhibit should be made, and this is the first time, I believe, in which there has been such a concerted movement in the interest of the South.

The prospectus of the exposition is now being prepared by Mr. F. B. Davison, commissioner-general, but it is the belief of our committee—and I think this is appreciated by the directors of the exposition—that the above-described exhibit, taking in, as it does, that large part of the United States south of the Ohio and Potomac rivers and east of the Mississippi River, will be the feature of the exposition.

I should add in explanation that, while the laws of Ohio required the incorpora-

tion of the Ohio Valley Exposition Co., there is no money-making feature involved in the entire plan.

The purpose of the exposition directors is to give an exposition which will be dignified and satisfactory in every way.

T. C. POWELL.

Bananas as the Basis of Sugar and Alcohol.

[Special Cor. Manufacturers' Record.]

New Orleans, La., March 29.

The filing of the charter of the Southern Fruit Products Co., Ltd., with an authorized capital stock of \$250,000 reveals operations in the direction of utilizing a waste product which promises vast possibilities of wealth production. This company operates on chemical processes discovered by Dr. L. L. Lavedan, a French chemist residing in New Orleans, who has for a great many years been experimenting with the utilization of bananas for the purpose of producing sugar, jelly, syrup, alcohol and vinegar. The astonishing statement is made that bananas contain more sucrose than the sugar-cane of Louisiana. By Dr. Lavedan's processes a most delicious syrup, jelly of a nature somewhat similar to the much-prized guava, vinegar of a most delicate flavor and alcohol of a superior quality are secured from bananas which are too ripe to be shipped and which would otherwise be left to decay on the ground.

The associates of Dr. Lavedan have been operating factories at Fond du Lac, Wis.; Benton Harbor, Mich.; New Orleans, La., and in Central America. The present organization is a new company, backed by Chicago capital and intended to further extend the utilization of the Lavedan processes. The officers of the company are: John G. Burnham of Chicago, president; John W. Griffin, New Orleans, first vice-president; C. P. Riley, Chicago, second vice-president; Burton O. Smith, Chicago, secretary; Wm. G. Stearns, Chicago, treasurer. Dr. L. L. Lavedan is a director.

A. P.

To Erect Oil Refining Plant.

Current reports announce the purpose of the Texas Company of Houston and other cities to erect an oil refining plant, tanks and other facilities for refining and distributing oil at Charleston, S. C. It is stated that a site has been acquired on the Cooper River, where the plant will be erected, and that crude oil for refining will be shipped on barges from Port Arthur, Tex. Nothing definite as to the plans of the company in connection with the enterprise has been announced, but it is understood that preliminary work for the erection of the tanks is in progress.

Utilizing Chattahoochee River Water-Power.

[Special Correspondence Manufacturers' Record.]

Columbus, Ga., April 2.

From Columbus 34 miles north to West Point the Chattahoochee River has a fall of 362 feet, and, as the river has a rocky bottom and is flanked on either side by high bluffs, it presents an exceptional opportunity for hydro-electric development. At present 20,000 horse-power is being generated from three different developments, and work is about to be started on a fourth to generate an additional 24,000 horse-power, while it has been conservatively estimated by competent engineers who have made surveys and examinations that

Factory, as it was popularly known, in 1837 at a point about three miles above Columbus. They were next utilized about 1852, when the Eagle Mills, now part of the Eagle and Phenix Mills, built a dam and installed a water-wheel at its plant, which is located in Columbus immediately at the end of the river fall and at the head of navigation. This mill became a most important industry, and during the Civil War manufactured much of the cloth used in making uniforms for the Southern soldiers. Mainly on this account it was burned and the dam destroyed by the Fed-

eral soldiers. As soon as feasible after the war a new mill was erected and a large masonry dam constructed. The electric power capacity of this plant now is about a minimum of 3500 horse-power and a maximum of 6000 horse-power.

The next dam to be constructed was that of the City Mills Co., this being about 20 years ago. Since that time it has been considerably improved, and today is generating electricity to the extent of 1200 horse-power and direct power of 800 horse-power for operating a grist mill.

The largest development on the river, that of the Columbus Power Co., located at North Highlands, was built about 10 years ago, the capacity at that time being

8500 horse-power. This undertaking was organized by four of Columbus' leading business men—G. Gundy Jordon, John Hill, H. M. Comer and J. F. Hanson. They later sold the plant to the present owners, who by wise policies have considerably broadened the scope of the undertaking.

These brief references to the historical features of the water-power resources of this section are made merely to show that practically from the outset the manufacturers realized their value and utilized them.

Never, however, in the history of these developments has the outlook been more promising than now, and the future is in-

TYPICAL EMPLOYMENTS OF CHATTAHOOCHEE POWER IN INDUSTRY.



HYDRO-ELECTRIC PLANT OF THE COLUMBUS POWER CO. AT NORTH HIGHLANDS, 12,000 HORSE-POWER, AND COTTON MILL OF THE BIBB MANUFACTURING CO.



EAGLE AND PHENIX COTTON MILLS AND WATER-POWER PLANT.



CITY MILLS COMPANY'S WATER-POWER PLANT.

an aggregate of 80,000 horse-power is available within 20 miles under existing conditions. However, if the sources of the river, extending over 300 miles above, were reforested and impounding reservoirs were constructed, so as to produce an average flow of the river, it has been estimated that a minimum of 210,000 horse-power could be generated within this short distance.

The advantages of this locality were early recognized. In 1827, when the State of Georgia appointed a commission to lay out a trading town on the Chattahoochee River, they selected the present site of Columbus because it was situated at the foot of the rapids and at the head of navigation of the river. According to the earliest records the waters of the river were first employed for driving machinery by Clapp



PERKINS HOSE & MILL, TOPSEY MILLS IN THE REAR.

deed bright for the realization of that broad industrial development which the natural resources of this territory warrant. The Columbus Power Co. found it necessary to steadily enlarge its capacity at the North Highlands plant, and by the installation of a new unit which has been ordered this will be brought up to 12,000 horse-power.

This change of conditions has in the most part been due to the wise and liberal policy pursued by the present owners and operators of the Columbus Power Co., Stone & Webster of Boston, Mass. Upon assuming control this company immediately commenced to put into working order the same policies of management that has made it so successful in the operation of public utilities in various parts of the country. Through intelligent efforts the

users of power have been brought to realize that they have advantages in the way of economical power for all purposes enjoyed but by few communities in the country. The result of this has been that even though located practically at the doors of an important coal-mining territory, water-power is being used to drive either electrically or by water-wheels 95 per cent. of the industries of this section.

With an abiding faith in the future growth of Columbus and that territory immediately above it, the Columbus Power Co. secured control of all the riparian rights on the Chattahoochee River for a distance of about 20 miles above the city, giving it possibilities for future development to the extent of 60,000 additional horse-power. As the increase in the use of electrical power has been largely due to its own efforts, the company has recognized its responsibility of being able to meet the demands at all times. Consequently it built a steam auxiliary electric generating plant with a capacity of 3000 horse-power, so that in times of extreme high or low water continuous current could always be supplied its customers. Moreover, the company's aim has been to always enlarge or improve its plants, so as to keep ahead of the demand. Consequently, finding that the demand was steadily increasing, and that it would not be long before the present capacity would be insufficient to supply the demands of large additional power users, it was determined to undertake immediately the enlargements of its facilities.

The original plans provided for the construction of a 25-foot dam at Goat Rock, about 12 miles above Columbus, to provide for increased storage capacity of water for its established dams, and by the installation of additional units in the existing plants an increase of 4750 horse-power would be secured. It was planned to so construct the foundations of this dam that at a later date, when the demand was further increased, it could be continued up to a height of 70 or 80 feet and a hydro-electric plant of approximately 24,000 horse-power installed.

Since these plans were originally framed up, however, the outlook for still greater demand for power has become such that it is very probable that the 70 or 80-foot dam and power-house will be constructed at an early date and electrical generating units installed to meet conditions as they grow.

It has been conservatively estimated that the power as already developed is saving to the industries of this section more than \$250,000 annually as compared with the cost of operating with steam power, and that total investments for new plants, additions to established plants and other general improvements made by those using hydro-electric power has been more than \$15,000,000 in the past nine years.

As a result of this cheap power, combined with natural resources of a wide variety abounding in this territory, a number of important and diversified manufacturing enterprises have been established in Columbus and surrounding sections. These industries include principally textile plants, commercial fertilizers, iron works and foundries, showcase, school desk, furniture and other woodworking plants making varied products, cotton gin and compress machinery, cottonseed-oil mills, ice and bottling works, brick and concrete plants, wagon and buggy factories, syrup refinery, plow plant, ice-making machinery, engine and boiler works and other plants of a miscellaneous character.

The textile industry is the largest, and it has enjoyed a steadily-increasing growth; the various mills have from time to time enlarged their plants, until today the total number of spindles installed is close to 250,000, looms about 5000 and knitting

machines about 650. Approximately 55,000 bales of cotton are consumed in these mills annually.

The advantages of this section for textile manufacture is perhaps more strongly shown by the continued enlargement of its mills than in any other way. The Eagle and Phenix Mills has from time to time so added to its capacities that today it has five mills and such auxiliary plants as machine shops, dyehouse, woodworking shop, etc. These several plants occupy about 10 acres of floor space, have 70,000 spindles, over 2000 looms and employ about 1500 hands. Its output is of a high character, and is valued at about \$2,000,000 annually.

The Columbus Manufacturing Co. is just completing the enlargement of its mill building, which provides for an initial increase in spindles from 30,000 to 50,000 and an ultimate increase to 65,000 spindles. This plant also has about 2000 looms, and turns out annually about 25,000,000 yards of fine sheetings. Its newly enlarged plant covers an area of seven and one-third acres of floor space, and it has the largest single cotton-mill building in the vicinity.

The Perkins Hosiery Mills has also erected a new building to manufacture its own yarns, and this addition will give it a total of 8000 spindles. This company has also just taken over the Topsey Hosiery Mills, which immediately adjoins it. The Hamburger Cotton Mills has also recently increased the size of its plant, and now has about 8000 spindles.

Unique among the cotton mills at this place is the Bibb Manufacturing Co., which uses imported Egyptian Sea Island cotton exclusively for the manufacture of fine yarns. This is quite a large plant, having about 30,000 spindles, and is located directly at the North Highlands dam development of the Columbus Power Co. The plant is operated by a rope drive, power being secured from water-wheels, water being obtained from a penstock leading from the dam.

Other important textile plants here include the Muskogee Manufacturing Co., having about 33,000 spindles; the Swift Manufacturing Co., 18,000 spindles; the Swift Spinning Mills about 12,000, a recent increase having been made of 2000 spindles; the Girard Cotton Mills, 7000 spindles, and the Georgia Manufacturing Co., 8000 spindles.

It is an interesting fact that every one of the textile mills in this section secures its power from the falls at or above Columbus, and this has played no small part in enabling them to continue to expand, owing to the important influence this cheap power has had in enabling them to be operated at low cost.

That the eyes of other textile manufacturers are turning in this direction is well evidenced by the fact that at this time two important interests are carefully studying the conditions of this section for the purpose of possibly locating new mills.

But advantageous as this location is for cotton manufacture, it has as good facilities for many other varied lines. The iron and coal fields of Alabama furnish abundant supplies of iron and steel and coal and coke cheaply and at low freight rates, thus affording raw materials for the manufacture of such products as hardware, machine tools, engines, boilers, woodworking machinery, textile machinery, farming implements and other finished products. A striking instance of the possibilities along these lines is the Columbus Iron Works, established in 1853, and having a steady growth and expansion since that time. This company, which now has a capital stock of \$600,000 and does about \$1,000,000 worth of business annually, manufactures a varied line of products, such as ice

machinery, agricultural implements, engines and boilers, and sash, doors and blinds. Other instances are the F. H. Lummus & Sons Company, with \$100,000 capital and manufacturing cotton gins and presses, and the Goldens Foundry & Machine Co.

Another important resource contiguous to this section is hardwoods of many different kinds, including oak, hickory, birch, beech, maple, ash, gum, bay, poplar and long and short leaf pine. In the utilization of these hardwoods in this vicinity there are three showcase factories, one of them said to contain more floor space than any similar factory in the country; three school-desk plants; several carriage, wagon and buggy works; two sash, door and blind mills. This valuable timber, instead of being sold as such and shipped to other points to be made into finished products, could be used to marked advantage in connection with the low cost of electric power, for making furniture, chairs, hardwood flooring, interior finish, mantels and other products.

On both sides of the river abound valuable clay deposits, and there are already established three brick plants on the Alabama side and three on the Georgia side. This clay is said to be of the highest quality, and to be suitable for the manufacture of such products as high-tension insulators and other electrical porcelain, tableware, sanitary ware, terra-cotta sewer pipe, architectural terra-cotta, vitrified paving brick, etc.

In addition to the several resources referred to, there are a number of other raw materials that could be assembled here, manufactured into finished products at low cost and distributed to a wide consuming area, this being evidenced by the fact that there are already a number of diversified industries prospering in this section, and who have been able to build up their business mainly on account of the low cost of power and splendid shipping facilities.

Evidencing this statement is the fact that cotton spindles here have increased in number from 72,000 in 1898 to 250,000 at the present time, while from actual figures furnished by the various manufacturers in this section the following results of 1908 business, which was an off year, speak for themselves:

Textile plants.....	\$5,637,000
Commercial fertilizers.....	2,600,000
Iron works and foundries.....	995,000
Showcases and furniture.....	500,000
Woodworking plants.....	450,000
Cotton gins, presses, etc.....	400,000
Cottonseed-oil mills.....	335,000
Ice and bottling works.....	270,000
Wagons, carriages and buggies.....	250,000
Syrup refineries.....	225,000
Marble works.....	120,000
Miscellaneous articles.....	333,000
	\$12,465,000

It is conservatively estimated that the total amount of business in this section has increased 100 per cent. in the last 10 years, which testifies to the healthy growth being enjoyed.

Ernest efforts have been made by the leading business interests looking to securing of Government appropriations for providing a new outlet to shipping going down the Chattahoochee River. On account of the great amount of silt being deposited at the mouth of the Appalachian River, which is the continuation of the Chattahoochee through Florida and into the Gulf, large vessels have been prevented from coming into the port of Appalachicola, with the result that what was once an important port has now lost considerable prestige. These efforts have been rewarded by the fact that the present rivers and harbors bill in Congress appropriates \$100,000 to dig a canal of six-foot depth from the river by way of Lake Wimico and Searcy Creek into St. Andrews Bay, Florida, which is a land-locked port, and as this bay has no large rivers flowing into it to fill up its mouth, it will afford a most

excellent harbor for vessels of large draft. It is planned to have this canal finished by the time the Panama Canal is completed, so that in addition to giving an all-water haul from Columbus to South American ports, it will also give an all-water haul to most coasts of this country and South America, as well as to other countries in the Orient, particularly China, which is a large consumer of American cotton goods.

President F. B. Gordon of the Columbus Manufacturing Co. aptly illustrates the advantages of this all-water haul by the following reference: During the past two years his plant has exported about \$400,000 worth of cotton goods to China. This was routed via Vancouver, B. C., a rail haul of 4049 miles, and then across the Pacific Ocean for 5682 miles, a total distance of 9731 miles. The freight rate was \$1.25 per 100 pounds, and of this rate the railroads' share was \$1.05, or for the shorter haul the railroads received five times as much as the steamship lines. With the all-water haul, he points out, the same goods ought to be shipped for at least one-half the present rates, which would open up a wider market in the Orient for goods manufactured in this section.

With such a source of economic power located just above Columbus, which is at the head of navigation of the river, about 360 miles from the Gulf of Mexico; with eight different railroad lines centering in Columbus and radiating in all directions and connecting with the leading systems of the country; with cotton produced in abundance at the very doors of the section; with the valuable iron and coal fields of Alabama but a few miles away; with varied mineral, timber and agricultural resources abounding in the immediate vicinity, this short section of country in and immediately above Columbus offers a more than ordinary location for the assembling of raw materials at small cost for the manufacture of a wide variety of products, economical power for their manufacture and facilities by both water and rail for distribution over a wide area, embracing altogether many of the ideal conditions sought for in the operation of industrial plants.

WILLIAM H. STONE.

Portland Cement.

Art and utility are combined in generous proportions in a brochure published by the Alpha Portland Cement Co. of Easton, Pa., which aims to present a compilation of concise authentic information on Portland cement for the convenience of architects, engineers, contractors, dealers and all others who may have occasion to explain in popular language the advantages and uses of the material. The publication, which is handsomely illuminated, deals with proportioning in the uses of cement, the comparative cost of brick work and concrete, forms of concrete construction, atmospheric influences, sidewalks and pavement, curbing and gutters, concrete surfaces, reinforced concrete, fireproofing, concrete blocks, waterproofing, sea-water construction, the uses of cement from the standpoint of the owner of the home, the farm and other real estate, cement terms in popular language and other topics. It gives an alphabetical list of many of the uses for Portland cement, and 25 of its pages are filled with illustrations of divers structures in which the product of the company has been used, including the courthouse at New Orleans, the South Terminal Station at Boston, the power-house at Westport, Baltimore; the seawall at Galveston, railroad, bridge and other construction.

John H. Burgess of Cambridge, Md., contemplates establishing a steamboat line between Baltimore and Eastern Shore points, particularly along the Choptank River.

Alabama Lignite and the University's Producer Plant.

By F. H. SIBLEY, Professor of Mechanical Engineering, University of Alabama.

[Written for the Manufacturers' Record.]

Among the resources of Alabama which must at no distant date attract the attention of capitalists is the lignite coal deposit. The great bituminous deposits in the northern part of the State have so occupied investors that these geologically more recent coals have been neglected.

The lignite belt of Alabama is in the southern part of the State, and covers a part of Choctaw, Sumter, Marengo, Clark, Wilcox, Monroe, Butler, Green-shaw, Coffee, Pike, Dale and Henry counties. There are several small beds in the western part of the belt, and one large one that seems to extend entirely across the State from east to west. The average width of the belt is 25 miles, and the average thickness of the deposit is estimated at four feet. The coal outcrops in three lines. One is near the middle of the belt, and extends entirely across the State. A second outcrop occurs near the southern edge of the belt and parallels the first, while the third is seen in the extreme western edge of the State. The dip of the strata in this locality being from 30 to 40 feet to the mile, it has been estimated by the State Geological Department that the whole width of the belt is available for mining operations at a depth of not over 1000 feet, the estimated amount of coal being about 15,500,000,000 tons.

The future development of this great natural resource is made possible by the gas-producer plant. The State University at Tuscaloosa, by putting in a small producer plant, is doing what it is hopeless to expect of private capital; that is, demonstrating that the production of power from this lignite coal is a commercial proposition. The plant installed is of the Fairbanks-Morse suction type, rated at about 50 horse-power capacity. The specifications called for a producer that would handle experimentally any Alabama coal, the object being to make comparative tests. The producer includes a generator, vaporizer, scrubber, tar extractor and purifier, the tar extractor and vaporizer being added to the regular lignite outfits for the handling of soft coal. The engine is of the single-cylinder, horizontal, four-cycle type, known as "type L" of the company's manufacture. It is rated at 35 horse-power. Practice has shown that this plant will operate successfully on non-coking bituminous coal when run for 10 hours or more a day, giving time for occasional cleaning of the parts of tar, some of which passes the cleansing apparatus.

The tests thus far made on lignites have been of too short duration to establish any data regarding the use of this fuel, but such tests as have been made indicate that the plant will operate on a little less than two pounds of coal per horse-power hour at the switchboard. This is against 1.3 pounds for the bituminous coal in the same plant, and approximately 3.5 pounds for the steam plant located alongside and using the same bituminous fuel. The analysis of the coals on which the tests were made are:

For the lignite:

Moisture.....	25.96
Vol. matter.....	40.34
Fixed carbon.....	20.67
Ash.....	13.03
	100.00

Sulphur .65 per cent.

For the bituminous:

Moisture.....	1.54
Vol. matter.....	37.52
Fixed carbon.....	54.36
Ash.....	6.58
	100.00

Sulphur .66 per cent.

The operation of the producer is much easier with the lignite than with the soft

coal. Very little barring is necessary, and the tar extractor may be cut out. Steam may or may not be used under the grate.

In this plant the circulating pump which supplies water to the cylinder jacket is combined with the tar extractor, so that the latter had to be kept running.

It was found somewhat more difficult to get the engine started when using lignite, but once started it ran smoothly and required very little attention.

It will be noticed that the percentage of sulphur in the analysis shown is very high. This might prove a serious inconvenience in the operation of a large plant, as the escaping gases are extremely disagreeable and perhaps dangerous to attendants. Accumulations of moisture in the cylinder of the engine when not running might combine with the sulphur and injure the cylinder walls. Lime was put into the vaporizer water and also burned in the generator in an effort to neutralize the sulphur, but no effect was apparent, as shown by the gas analysis before and after the introduction of the lime.

The apparently high efficiency in fuel consumption should not all be placed to the credit of the plant, for the tar extractor and circulating pump required a considerable proportion of the power generated. The consumption of cylinder oil was also found to be abnormally high.

As has been already stated, the tests were too brief to more than indicate the good and bad features of the plant. More extensive tests which are planned for the future will doubtless clear up many points.

These tests, brief though they are, bear out the results being obtained elsewhere in the South with lignite producer plants, and indicate that the lignite coal beds of Alabama are a commercial proposition that only needs capital to add an enormous resource to the wealth of the State.

APPALACHIAN EXPOSITION.

Progress at Knoxville in Working Out the Plans.

[Special Cor. Manufacturers' Record.]
Knoxville, Tenn., March 30.

The people of this city and State are very much interested in the Appalachian Exposition, to be held in Knoxville September 12 to October 12. This exposition will be held for the advancement of the varied interests of the great Middle South. Its purpose is to emphasize the vital importance of conserving the forests and streams of the Appalachian region; to exploit the resources and potentialities of this wonderful mountain empire, and to show the progress of the South in agriculture, mining, manufacturing and commercial pursuits. The exposition has as its scope eight of the most important Southern States—Tennessee, Virginia, West Virginia, Kentucky, the Carolinas, Georgia and Alabama—and its possibilities are unlimited. The plans embrace all the best features of State fairs and of the large expositions that have been held in this country, including quite a number of high-class amusement features and many attractive exhibits have been planned which will be original and unique.

The area of the exposition site is 100 acres. It is a beautiful park, which is accessible by street-car lines, and the natural beauty of a lake and surrounding grounds will add very materially to its attractiveness.

One of the objects of the exposition will be to demonstrate to the farmers and cotton planters the possibilities of making farming pay without the dependence on cotton and tobacco exclusively.

The main building will be 150x350 feet, and two stories high, with a total exhibit space of 29,762 square feet. On the first floor will be agricultural, horticultural, mine and quarry and hardwood products, State and county exhibits, etc. On the second floor there will be agricultural and miscellaneous machinery, manufactures, art, domestic science, office appliances, etc. There will be in addition State buildings, fisheries building, forestry building, coal mine, tunnel and galleries, a poultry building 150x200 feet with coops for 300 birds, live-stock barn and one-quarter mile of shed, a stadium and exhibits of modern circular and band-saw mills in operation, road machinery exhibits, one mile of modern roadway showing improved methods of building, quarry machinery, drills and crushers and a model farm.

The people of the city are in earnest about this enterprise, and intend to make it a success. Everybody seems to be in the right spirit, and you do not find croakers who fear it will do no good. The city is well able to care for visitors, as it has six modern hotels.

One novel way of advertising the exposition is the distribution of buttons. The button is gold plated, with red, blue and white enamel. The border sets out in red, "Appalachian Exposition, Knoxville, Tenn." The letters A. E. are in white enamel and conspicuous in the center, resting upon a field of solid blue enamel, making the colors very distinctive. The demand for these buttons is very great. The idea is to place one of them on every man and woman in Knoxville, and especially upon those traveling out of the city. The originality is such as to attract attention and induce inquiries, which is the desire of the publicity committee. Credit for the design of the button is due Mr. Jos. L. Bowles of the publicity committee, who is also connected with the Wm. J. Oliver Manufacturing Co.

Mr. W. M. Goodman, the director-general of the exposition, has been talking about and anticipating such an undertaking for several years, and it looks now as if he would be able to realize his fondest dreams. For some time the impression was obtained that it would be an exposition suggested, but never realized; but the healthy condition that things are in now seems to assure success. I. S. F.

IRON AT BIRMINGHAM.

Quiet Still Prevails in the Market, With Firmer Tendency.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., April 4.

There is continued quietness in the pig-iron situation, though a somewhat firmer tendency exhibited by the leading interests, particularly considering the fact that present prices are more attractive to the buyer than the seller. Several round tonnage lots are reported to have been booked during the week, but the bulk of the business was composed of small lots. There was no special activity displayed in the way of inquiries. Some substantial business was booked on a basis of \$13 per ton at the furnace for prompt and second and third quarter delivery. Some lower quotations have been made than \$13 and some sales made at a slight shading, but it was in no way representative of an established market. Certain peculiar conditions more or less control the shading of prices, viz.: It may happen that one company has a little larger stock of a certain grade on hand than it prefers to carry, and in that instance 25 cents to 50 cents under \$13, in all probability, would be entertained for prompt or nearby shipment. In the main, however, the price seems to hover around \$13 per ton at the furnace. Some interests quote this price through the en-

tire year, while others limit the delivery to second and third quarter, reserving \$13.50 for fourth-quarter business.

In cast-iron pipe there was practically a repetition the past week of conditions prevailing the week previous, which means that the bulk of the business done in the way of sales was car-lot shipments. While there is considerable large business held in the background, in all probability pending solution of the pig-iron situation, local manufacturers manifest no uneasiness as to the real outcome. The hand-to-mouth inquiries continue good and result in business sufficient to warrant continuous operation of plants. Following prices per net ton f. o. b. cars here are asked: Four-inch, \$24; 6, 8 and 10-inch, \$22; 12-inch and over, average of \$21, with \$1 a ton extra for gaspipe; fittings, \$60.

Practically no change is noted in the old-material market. Users in different parts of the country seem to be pretty well supplied and are unwilling to take on further business except at practically their own prices. Dealers are holding firm for what they consider fair prices, and considerable small business is in evidence. There is no special demand for any particular grade over another, and the lull in the scrap market is perhaps more pronounced than any other kindred line. Dealers are asking substantially the following prices per gross ton f. o. b. cars here:

Old iron axes, \$20 to \$20.50.
Old iron rails, \$15.75 to \$16.25.
Old steel axes, \$17.75 to \$18.25.
No. 1 railroad wrought, \$14 to \$14.50.
No. 2 railroad wrought, \$12 to \$12.50.
Dealers' wrought, \$12 to \$12.50.
Old steel rails, \$12.50 to \$13.
No. 1 machinery, \$12.50 to \$13.
No. 1 steel, \$13 to \$13.50.
Old standard car wheels, \$13.75 to \$14.25.
Light castings, stove plate, \$9.75 to \$10.25.
Cast borings, \$6 to \$6.25.

Steel Rail Orders.

[Special Dispatch to Manufacturers' Record.]
New York, April 6.

Steel rail orders placed during the week include 950 tons of Bessemer and 10,700 tons of open-hearth with the Illinois Steel Co., and 775 tons of open-hearth with the Tennessee Coal, Iron & Railroad Co. Last week the Tennessee Coal, Iron & Railroad Co. sold 31,500 tons not heretofore reported.

POWER FOR LITTLE ROCK.

Board of Trade Interested in Hydro-Electric Development.

[Special Cor. Manufacturers' Record.]

Little Rock, Ark., April 2.

The indications now are that in the very near future Little Rock will have not only natural gas, but a power so much cheaper and more reliable that it will become one of the great industrial cities of the country. W. A. Fuller, the eminent engineer, of St. Louis, and his associate, H. F. Andrews of New York have been in the city, en route to the Pike county water-power near Murfreesboro. The Board of Trade has been doing everything possible in the interest of the enterprise, and Mr. Fuller reported to that organization that they were going on the grounds to at once prepare detailed plans and specifications preparatory to awarding the contracts.

On his visit to the Board of Trade he was accompanied by Mr. Geo. A. Showers and Mr. W. H. Hartwick, who have been active in promoting the company, and in reply to an inquiry the former stated that the bonds had been placed and the company completely financed.

"I can say this," said Mr. Fuller, "that

we shall develop 10,000 horse-power; that the plans will be completed as soon as possible, and that within a year the power from our wires will be for sale in Little Rock. It will be so cheap that natural gas will not be considered; and then just consider how much more reliable it is! The financing of this proposition following on the heels of your Land Congress, and the cheap power it assures for factories, is the making of Little Rock."

Situated as is Little Rock on a navigable river, and backed up by both natural gas as well as hydro-electric power, it is bound to become a great manufacturing city, as well as the commercial and banking center of the Southwest.

North Carolina Notes.

[Special Cor. Manufacturers' Record.]

Raleigh, N. C., April 1.

Work has actively begun on the \$100,000 municipal building and auditorium at Raleigh, and the contractor, J. B. Carr of Atlanta, has a large force employed. The building is to be completed by the last of December.

The Corporation Commission is notified by the railways that the union passenger station at Sanford, ordered by the commission, will be under construction within 20 days, and that during April work would begin on new stations at Statesville and Marion, while the union station at Raleigh will be remodeled and enlarged.

The Carolina & Northwestern Railway, which has built a turnpike to the crest of the Blue Ridge from its rail-head at Edgemont to Grandfather Mountain, on the famous Yonahlossee turnpike, notifies the MANUFACTURERS' RECORD correspondent it will do something unique in that mountain region in the way of an automobile tour through Caldwell, McDowell, Mitchell and Watauga counties, taking in Linville Falls, Blowing Rock and other points where automobiles have never been seen. In four counties in that region the automobile is yet a unique thing, and it was through these counties the MANUFACTURERS' RECORD correspondent tramped all last August. This first use of the finest mountain road in the South, the Yonahlossee turnpike, by automobiles will be quite an event. The new road from Edgemont is admirably built and the grade is light. Very good progress is also being made on the new turnpike from Lenoir to Blowing Rock, and that will be available for autos by the time summer begins.

William A. Simpkins has bought the building which was occupied by the American Box & Veneer Co. here, and will treble it in size and convert it into warehouses for cottonseed and for use as a cotton gin. The warehouses are to contain a quarter of a million bushels of seed.

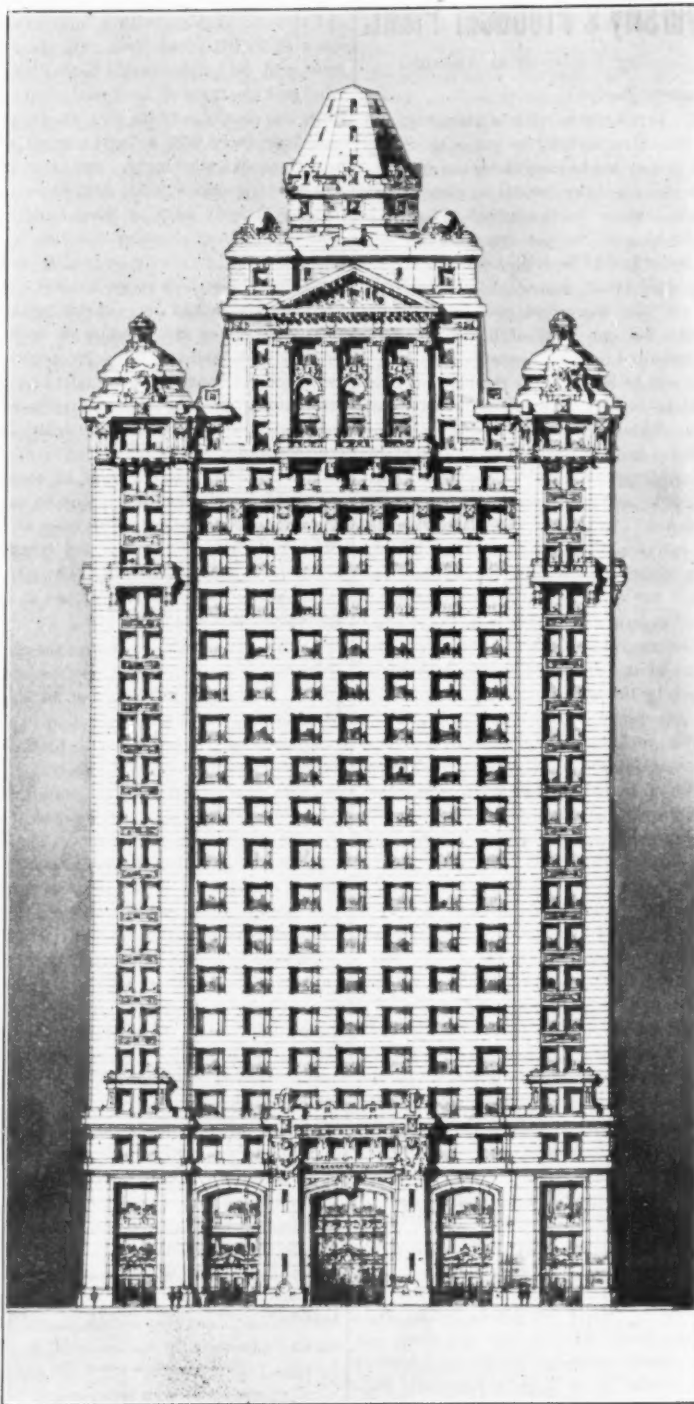
Work has begun on the \$200,000 improvement of the plant of the Carolina Light & Power Co. here. The size of the building will be doubled to provide space for machinery to furnish 7500 horse-power by steam and storage room for cars. This plant now gets power for steam and hydro-electric power from Buckhorn Falls, 26 miles away, and Milburnie, six miles distant. The work is to be done by mid-summer. Turbine engines will be used. There are already two of these.

FRED A. OLDS.

South Carolina Furniture Men.

The fourth annual convention of the South Carolina Retail Furniture Dealers' Association will be held in Spartanburg April 13-14. The officers of the association are Mr. O. M. Heard, Anderson, president, and Mr. A. W. Litschgi, Jr., Charleston, S. C., secretary and treasurer.

Plans are making for the drainage of lands in St. Bernard parish, Louisiana.



TWENTY-SEVEN-STORY BUILDING FOR ATLANTA.

Realty Trust Co., Edwin P. Ansley, president, Atlanta, has plans to construct 27-story office building above illustrated; 20 stories, 7-story tower, basement and subbasement; 80x150 feet; steel construction; marble and terra-cotta exterior; metal-lath partitions; tile or reinforced concrete floor slabs; 600 office-rooms; electric elevator for heavy freight; electric elevator for light freight; eight electric elevators for passengers; power plant in basement; weather bureau in tower; proposals in 90 days; completion contemplated in 18 months; cost \$1,250,000; architect, A. Ten Eyck Brown, Atlanta.

West Pulverizing Machine Co.

The West Pulverizing Machine Co. of Asheville, N. C., has purchased a four-acre site on the Southern Railway and French Broad River. It will erect a complete modern plant for manufacturing pulverizers. Its buildings will include machine, pattern, blacksmith and steel-plate shops, and foundry equipped throughout with traveling cranes and other modern improvements to facilitate the construction of large size pulverizers. The machine shop will have machine tools and boring mills of 10 or 12-foot swing, which are required for the company's special work, and planers, lathes and radial drills of corresponding sizes. Besides the usual punches and shears, radial drills, etc., the steel-plate shop will have extra large bending rolls 25 feet wide between housings, so as to make pulverizer shell plates 25 feet long in one

length of plate without any circular seam. These unusually long rolls are being made especially for the company. This company was mentioned recently by the MANUFACTURERS' RECORD as to be incorporated for the purpose of manufacturing pulverizer machinery. Its president is A. Lincoln West.

Cement Show in New York.

After consultation with many of the exhibitors at the recent cement show at Chicago the Cement Products Exhibition Co. of that city has decided to hold a show in Madison Square Garden, New York, next December 14-20.

Robert Montgomery of Lebanon, Tenn., according to a report from there, will establish an automobile line between that point and other places nearby.

In "Wiregrass" Georgia.

I. A. Fulwood of Tifton, Ga., writes to the MANUFACTURERS' RECORD:

"Tifton, a beautiful little city of 5000 inhabitants, is located in the heart of "Wiregrass" Georgia, with three trunk lines of railroad. Fine churches, schools, hotels, etc.; four banks, cotton factory, up-to-date water-works, sewerage and electric lights, ice factory, novelty works, milling plants, etc., but we are not satisfied; we want a canning and farm-tool factory; we want a canning and pickle factory, crate and box factory, brick plant and other factories.

"Tifton is one of the finest locations in the South for branch offices of corporations, manufactures, etc., and to back it our lands are slightly rolling, of level gray and red soil, with clay subsoil. We can grow a crop of early truck for market, and then on the same land, the same year, grow our general crops of corn, cotton, hay, potatoes, peas, etc., and at the same time raise our hogs, cattle, milk and butter, poultry and eggs for home use and market, and find ready market for all of it at good prices. We want capital and good people to help settle up and develop South Georgia."

Appalachian Engineers.

The Appalachian Engineering Association, with headquarters at Roanoke, Va., will hold its next annual meeting at Winston-Salem, N. C., May 6 and 7. This body has a membership of 70 of the leading engineers of Virginia, West Virginia, Pennsylvania, Maryland, North Carolina, South Carolina, Georgia and Tennessee. Its officers are E. A. Shubert, Roanoke, president; Baird Halberstadt, Pottsville, Pa., vice-president; Dr. Henry M. Payne, Morgantown, W. Va., secretary, and C. E. Krebs, Charleston, W. Va., treasurer.

A Kentucky Development.

M. J. Moss and White L. Moss of Pineville, Ky., have purchased and leased about 1500 acres of coal land in Harlan county, Kentucky, and will install mining equipment to develop the deposits. Communications may be addressed to White L. Moss with reference to the enterprise.

The February number of the Journal of the American Society of Engineering Contractors publishes papers on concrete chimney construction by Carl Weber, C. E., Los Angeles, Cal., and on concrete bridges as a specialty by Daniel B. Luten of Indianapolis, Ind. Both papers are fully illustrated with diagrams and half-tone engravings.

The Brickmakers' Association of Arkansas has been organized with M. C. Barke, Fort Smith, president; George B. Youch, Pine Bluff, and C. W. Clark, Little Rock, vice-presidents, and C. E. Taylor, Little Rock, secretary and treasurer.

The Commercial Club of Hattiesburg, Miss., is circulating as part of its publicity work for the city a synopsis of a report by its secretary, Mort L. Bixler, outlining recent progress there and suggesting greater endeavors.

Mr. J. M. Taylor of Port Gibson, president of the Mississippi Live-Stock Association, who established a model dairy farm near his home five years ago, has now, it is claimed, the largest farm of the kind in the State.

Mr. J. F. Jackson, immigration agent of the Central of Georgia Railway, is planning to bring from the Middle West a class of settlers to utilize for farming purposes lands in the neighborhood of Savannah.

What of the South in the Next Twenty-five Years?--3.

In the January 1 issue of the *Courier-Journal* of Louisville, Ky., was published an article by the editor of the *MANUFACTURERS' RECORD* suggesting certain questions as to the possibilities of Southern development in the next 25 years. The article was called to the attention of a number of men active in the material affairs of the South, and they were requested to give an expression of opinion as to the outlook. A number of these gentlemen have sent interesting replies, some of which have been published in our columns. Others are published below.

TO TREBLE ITS PRESENT POPULATION.

By A. W. McKEAND, Secretary Chamber of Commerce, Oklahoma City, Okla.

I could only speak in a general way of the South as a whole, but can speak from personal practical knowledge and observation of Oklahoma as one unit in the system of Southern States. I believe that Oklahoma will quadruple its wealth and treble its population in 25 years, and my reasons for so stating are these:

First, agriculturally, Oklahoma is in its infancy; less than 30 per cent. of its tillable soil has been scratched. We have just passed the experimental stage, and know what crops can be produced profitably. We are just beginning to determine the class and kinds of fruits that will pay as a commercial crop. We have used no fertilizer, and have just begun to rotate crops in a systematic manner to get the best results. We have firmly believed that the day of the large farm and ranch has passed, and that the 10, 20 and 40-acre farms will be the rule. That we will have "intensive" cultivation instead of "extensive" cultivation, and will reap in proportion greater profits and have fewer failures and consequently a more satisfied and more profitable farm community. The farm population can easily be trebled and the production more than quadrupled.

Second, Professor Gould, in charge of our geological survey connected with the State University, is authority for the statement that "Oklahoma has more kinds of minerals and more minerals of a kind than any other State in the Union." Careful investigation causes us to believe that Professor Gould's statement is correct. There are many thousands of square miles of coal of excellent quality that have not been developed. There are the largest deposits of asphalt for paving purposes of any State. There are the largest gypsum deposits in the world, which, with its many uses, will add great wealth. All the building materials are represented in immeasurable quantities. Our oil and gas production is the largest in the world. We are easily the second or third State in actual deposits of lead and zinc. The iron deposits have never been touched, but are very large; in fact, not to exceed 5 per cent. of the mineral wealth of the State has been touched or even scratched.

Third, as a manufacturing State, Okla-

homa stands at the bottom of the list, for the reason that the farmer, the retailer, the jobber, have had first to pioneer the country. This has been done, the farmer and stockman knows what he can do, the retailer has proven that his line is a success, the jobber has found the prosperous retailer to whom he can dispose of his merchandise, and the manufacturer is just waking to the possibilities of the untold raw material in form of the produce of the farm and mine. Then with this raw material, the cheap fuel from our coal, gas and oil fields, the hard and soft wood from our great forests, the water-power from our innumerable streams, the excellent railroad service in all parts of our State, the large and prosperous consuming population, and it can be readily seen that some of the idle money of the East will quickly be invested in substantial manufacturing enterprises. The year 1909 was the first year in which active work was carried on looking to the promotion of the various factory lines. No less than four packing establishments for the handling of our live-stock were established during the year, the largest one at Oklahoma City having a capacity larger than the combined plants of any other Southern city, and before this plant is ready for operation we expect to make the announcement of another of equal capacity. Oklahoma stands about sixth in cotton production, and has only one cotton mill. No iron or steel works. Limited number of flour and oil mills. No clothing factories, no cereal or food factories; in fact, none of the large industries are represented, with the few exceptions named above. Certainly a fruitful field, one that must necessarily mean a great increase in population. For these reasons the writer conscientiously believes the first statement made in this letter. So far as our own city is concerned, we have every reason to believe that it will treble its present population in five years and be one of the largest Southern cities. If this is true of Oklahoma in particular, why is it not true of the other Southern States, whose resources are similar according to size and location, and whose people are just as progressive.

WHY HE IS AN OPTIMIST.

By FRED A. OLDS, Secretary Chamber of Commerce, Raleigh, N. C.

The writer may be, and no doubt is, an optimist, but this is due to the very fact that, having been in the newspaper profession for almost a third of a century, he has had exceptional opportunities of observation of development in the South, and has seen what may be termed the very beginning of the new dispensation in this part of the country a decade after the war, when the States began to emerge from the cloud of reconstruction and stagnation. North Carolina is today not the same State it was then, yet the heroism and fortitude of the people in the mass at that day is exactly what made the glorious things of this present time possible. In other words, the South has to an immense extent been the architect of its own fortunes. It was so in the old days, and in the new ones it is true to a degree only a little less, since though large investments have been made

in this part of the country by people from the North and West, yet they are but a trifle compared with those made by the native-born people, who compose almost the entire population.

What the South has done is merely a sort of curtain-raiser for the grand exhibition of what it will do. This certainly can be said as to North Carolina, for the writer has been in every county in the State, and knows the progress and the plans to a considerable extent. One thing is certainly true, this being that the South, certainly North Carolina, has gained absolutely by its freedom from promiscuous foreign immigration, and this fact becomes more evident every day. One of the results is that the people take an intense pride in what they are doing, and it acts as a powerful stimulant to effort. I do not know of an idle section in the State;

one in which fine things are not being done or prepared for; things which mean growth and money and a great future; railway development, the great inland waterway and its canals; trucking; berry-growing; lumbering; furniture manufacture; textile manufacture; tobacco-growing and manufacture; agriculture in all its forms, including the greatest development of corn-growing in the country; hydro-electric power development; conservation of forces and streams and game protection; improvement in highways; use of convicts as road-builders, etc. Added to these things must be mention of the winter and summer tourist business, now very important, and which has led to not only many new settlers, but also many investments by a very desirable class of people. North Carolina stands a full third in cotton spindles, and there is every reason to believe that the development of textile industries will in less than a score of years extend from here to Texas. Nothing

is plainer than that the mills, as far as they can, are going to the cotton. Another very clear thing is that it will be improved farming which will bring about the highest state of efficiency and progress in the South; that sort of farming which makes an acre double or more than double its production, and which thus saves land and labor, and so more than doubles returns. The farm schools, which in the section around Raleigh have, for the first time in the United States, begun where they ought to begin, namely, at the rural common schools, are going to spread everywhere and be the most powerful factor in teaching agriculture as English and arithmetic are taught.

Now you see why the writer has reason to be an optimist. The South is a changed world in point of progress and development since 1875, and yet, big as are the things which have been done, they are merely a hint at those which are coming.

MARKETS FOR INCREASED INDUSTRIAL OUTPUT.

By WM. B. HURST, President Merchants and Manufacturers' Association, Baltimore, Md.

In reply to your letter asking for an expression of my views as to the future growth of the South, and also as to any deterrent factors that might militate against such a development, I can only answer very broadly that nothing is impossible. While I have not the data before me as a basis to figure showing the proportion of increase as compared to the balance of the United States in the last decade, I believe that the growth of the South will be greater than that of any other section. Its development and expansion have only begun. With the increase of capital has come the opportunity to develop its wonderful resources. Even the most optimistic views seem capable of achievement.

On account of the many varied natural resources which the South contains, it ought certainly to advance in all lines of industrial enterprise more rapidly and more broadly in years to come than any other section of the country. The only thing which to my mind may have a retarding effect upon the great development

that ought to take place in this section is, whether or not there will be a sufficient market for the consumption of the increased output of the South, together with that of the rest of the country.

In order that the industrial development of the South may advance on a still broader scale in the future than it has in the past, it will be necessary that markets be created for this increased output. Whether or not the demand for all classes of products will increase in this proportion or not is the great question. With manufacturers in foreign countries continually enlarging and increasing their output, the competition for foreign trade is becoming keener, and, as the cost of manufacture in this country is higher than in foreign countries, we are placed at a certain disadvantage in seeking foreign markets; consequently it will be necessary, if we expect a still greater development in the years to come, that the consumption and outlet of manufactured products be correspondingly increased.

THE SOUTH NEEDS MEN.

By HUGH MACRAE, HUGH MACRAE & Co., Bankers, Wilmington, N. C.

Under normal conditions I think there are hardly any reasons to doubt the South will show a growth during the next 25 years which will astonish the world, and the possibilities which you point out are certainly logical and reasonable.

I have a very strong feeling that what the South needs most (and the need will be very keenly felt in the near future) is men. If the industries are to be developed there must be a steady flow of population Southward. The opportunities are there, and money will follow quickly; in fact, financial resources can be transferred overnight; with population it is different. First the mental attitude has to be prepared, and then it takes time to adjust the conditions for receiving the newcomers, even after they are ready to start.

As an instance: I have a friend who has just returned from the great hunting

preserves on the east coast of South Carolina. The immensely valuable lands and rice plantations have been abandoned within the past two or three years, and many of them sold to rich hunters because of a shortage of labor and the fact that the sawmills and other industries provided employment for all the labor available from \$1.25 to \$1.50 a day.

In 1906 I could see this condition plainly all over the South. Cotton mills were running a part of their machinery, railroads were unable to get track hands and farmers were complaining of a serious shortage in labor. The awakening of Texas and Florida is due to the drift of population to those points, and as soon as there is a distribution of these incoming people and an increase in the number there will be, I believe, a similar and greater awakening all over the South.

WHERE LAND IS STILL TO BE CULTIVATED.

By FRED W. COOK, JR., President Chamber of Commerce, San Antonio, Tex.

To those conversant with conditions in this section of the United States it is no stretch of imagination to believe that the development of the next 25 years will not only show a similar increase, but will in all probability show an increase of 100 per cent. greater. It is no idle optimism to hope for this much when we know that the impetus of growth carries forward geometrically rather than arithmetically. Since it is written "Unto those that have shall be given," certainly the situation in Texas

warrants the hope of a much greater development than even a 100 per cent. increase over that of the past 25 years.

According to the map just issued by the Texas Commercial Secretaries' Association, based upon the reports of the Department of Agriculture at Washington, there is a total of 26,496,100 acres in this great State now in cultivation, and a total of 141,372,000 acres uncultivated. Some idea of this enormous proportion of land yet to be brought into development may

be gained from the fact that the uncultivated area of Texas exceeds the total area of the 13 original colonies excepting Georgia and North Carolina. It exceeds the total area of all the States bordering on the Atlantic Ocean from Maine to North Carolina, inclusive. It is estimated that this uncultivated area of Texas alone will support all the people in the United States on a basis of two acres of cultivated land per capita, which is the average.

Some idea of the remarkable growth of this State may be gained by the fact that as many as 100,000 homeseekers are coming into this State every year, and it is estimated that real estate values increase in Texas approximately \$1,000,000 a day.

Take Bexar county, in which San Antonio is situated. The splendid growth of this city to a population of 110,000 has been achieved by a 15 per cent. agricultural development of the surrounding territory, and there yet remains in Bexar county an area of uncultivated land larger than the total area of the State of Rhode Island.

AS FACILITIES ARE INCREASED.

By E. T. TUCKER, Corresponding Secretary Commercial Club, Tulsa, Okla.

Regarding the future of the South and the probable rate of its development, the writer can speak only of this part of the country, Northeastern Oklahoma, particularly that part of it within a radius of 100 miles of Tulsa.

This district has not yet been even fully prospected, yet it supports a population of 750,000 people. Our farm, factory and wholesale development has but fairly commenced. Within 10 years our cultivated land will include at least five times as many acres as at present, and the average yield per acre will have more than doubled. Increased railroad construc-

In manufacturing Texas has made only a small beginning, although the bulk of the raw material in cotton of the whole world is produced here. A large percentage of mohair and wool is also produced in Texas. The mineral resources of the State have hardly been scratched. Its immense deposits of coal of various grades are worked only in a few places. Its leading cities have nearly all doubled in population in the past decade. The registration of voters, concluded on January 31, for the coming State election, showed 650,000 voters, and under the poll-tax requirements of this State a large proportion of the voters did not register. It is safe to say that there are 1,000,000 voters in the State of Texas. Using the multiple of five, this would make a population of 5,000,000. As this State is capable of supporting the entire present population of the United States, it is no idle dream to believe that the development of the next 25 years in Texas, as well as in the South, will pass beyond the estimate of even the over-enthusiastic optimist.

tion will have opened up new territory, new towns will have been built, new acreage brought into cultivation, and every worker made more efficient. Our coal, oil, stone, timber, natural gas and mineral deposits will then be in full process of development. Our cheap power—already responsible for several industries—will have greatly increased the number of our factories, their size and their gross production; ten times the present output seems to me to be a very modest estimate.

Yes, the next 10 years will accomplish not only more than the last 50 years, but far more than all the years past have done in the way of material development.

MATERIALS FOR MANUFACTURING STILL UNTOUCHED.

By J. S. KUYKENDALL, Secretary Board of Trade, Winston-Salem, N. C.

In the early 80s, when a few Southerners began planning for the manufacture of cotton on an extensive scale in the South, the Eastern mills thought it was not possible for the South ever to become a factor in the manufacture of cotton to the extent that she would be recognized as a competitor. Today the line of battle is fully drawn between the North and the South in the manufacture of cotton goods and textiles. At that time our mines, forests, timber lands and other materials were practically untouched. Today the manufactured products of these raw materials has brought the South to the attention of the world from a manufacturing standpoint.

Agricultural products of all kinds have added material wealth to the South, and while these commodities which have been in a measure developed are the ones most easily converted from the raw material to the manufactured product, and those for which there is the greatest demand by the greatest number of consumers, the manufacture of the better grades of goods is yet undeveloped in the South.

When we see the character of the cotton goods manufactured which has brought the South on a parallel with the East in the manufacture of cotton goods and textile goods, and note that these Southern manufacturers have only begun on the cheaper and medium grade goods, which also applies to furniture and a number of other commodities manufactured in the South, we must recognize the position we will occupy in the future as we rise to meet the growing demand that the better class trade requires, and manufacture a higher grade of goods; recognizing, as we do, that it is possible for the same number of factories which we have today, were no others installed, to increase the production

of the manufactured products of the South to four times what it is today from the same amount of material by making the same class of material which is made in the North and East.

There are many classes of our material as yet untouched in the South which, in all probability, in the next decade will be manufactured just as extensively as cotton, furniture and other raw materials have been in the past decade.

While agriculture is improving in a gratifying measure in production in the South, with increased interest in better farming and good roads by the various Southern States, it is a well-recognized fact that the \$750,000,000 sent to central Western and Northern States for farm products, which is about the amount we import now from those States, a large proportion of this product will be produced in the South.

Today practically all the matting used in America is made in China and Japan. With the progress the Department of Agriculture in Washington is making with rush it appears that within the next few years the Southern States and Southern California will be growing enough raw material to make every roll of matting imported into this country. From our clay beds in the South will spring factories to utilize the "red mud" of the South into beautiful, artistic vases and earthenware articles, whereas, such as we now receive are imported from Japan and other foreign countries. From our sand beds will spring up glass factories to supply the growing demand of the country, which now depends on the Central and Northeastern States for this class of goods.

The silk industry has made a start in the South, and within the next decade will be as firmly established as the cotton in-

dustry is today in proportion to the production.

The impetus to Southern commerce which the Panama Canal will create in railroad and water traffic is hard to estimate, and means more to the South than anything that has taken place in the life of this section during its entire past history, as is well recognized from the persistent efforts now being put forth by the leading railroads to make connection at the Gulf ports and Atlantic coast points.

Within the next 10 years doubtless will be established a great clearing-house in some large Southern city. In 1912 the entire State of North Carolina will invite

THE TREASURE-HOUSE OF THE NATION.

By JOSEPH B. BABB, Secretary Chamber of Commerce, Birmingham, Ala.

I read with very deep interest your review and analysis of the progress of the South in the past 25 years. To my mind, your exposition of Southern progress is the answer to the question, "Can the South progress as much in the next 25 years as the whole United States has in 50 years?" The next 25 years will exceed in development of resources, creation of wealth, utilization of natural forces and invention of labor-saving machinery any like period in the history of mankind. In

every man, woman and child who has moved away to other States to return and see what the Old North State has done. If every Southern State would do likewise I believe it would be the greatest move undertaken in many years to bring capital and the class of people who now live in the South to return and cast their lot once more with their own people.

If the South is to achieve the success predicted it must act as a whole through every legitimate organization of each State along lines commensurate with the achievements hoped for. To do big things we must do them in a big way, and the States should participate in the effort to bring about the supremacy of the South.

this forward movement the South must necessarily be conspicuous. In forecasting her future one is more apt to err on the side of conservatism than overpredict her destiny. The South is the treasure-house of the nation, and after 25 years of further development will unfold to the world an unparalleled splendor of wealth.

With her seasonable climate, her wonderful resources, with widened opportunity, with quickened energy, in the next 25 years the South should easily be as rich as the United States is today.

FORT SMITH'S PROSPECTS.

Availing Itself of Vast Natural Resources for Industry.

[Special Cor. Manufacturers' Record.]

Fort Smith, Ark., March 26.

Fort Smith grows apace. With a population of 38,646, an increase of 5958 within two years, this city is forging ahead with great activity. During the past year the building records show a total construction approximately valued at \$1,000,000 (actual building permits), which is \$300,000 larger than the year previous. The following new buildings have been erected: First National Bank, eight-story bank and office structure, concrete and reinforced steel, white enameled fronts and terra-cotta trimmings, costing \$225,000; Hotel Goldman, brick and reinforced steel and concrete, six stories and basement, costing \$350,000; Speer Hardware Co., 100x140-foot building, 98,000 square feet floor space, six stories and basement, brick and slow combustion construction, capital \$300,000, D. Speer, president; C. E. Speer, vice-president and general manager; R. F. Vick, secretary and treasurer; Elks' Club, brick and reinforced steel and concrete construction, four stories and basement, costing \$75,000. There are now being built the Nakidimen building six stories, brick, reinforced steel and concrete construction, bank and office structure, to be occupied by the Arkansas Valley Trust Co., to cost \$100,000. Over 10 commercial buildings and about 652 residences and dwellings have also been erected during the past year.

The public improvements now in progress indicate the progress of the city. They are 71 miles recent additional paved streets; 44 miles additional sanitary sewers, main trunk 12 feet 8 inches in diameter; 200 miles of sidewalks. These improvements were necessitated by the solid growth of the city within the past five years. The building constructions authorized for 1911 are: County courthouse addition, \$100,000; manual training and domestic science school, \$75,000; extension of plant facilities, Fort Smith Wagon Co., \$20,000.

The growth of Fort Smith along industrial lines is keeping pace with the growth of her population. Among the industrial plants are Mitchell Spring Bed Co., Eads Brothers Chair Manufacturing Co., Brown & Yoke Vitriified Brick Co., Stand-

ard Excelsior Co., Arkansas Casket Co., Fort Smith Novelty Co., Fort Smith Sign Co., Fort Smith Crushed Stone Co., Fort Smith Traction & Crushed Stone Co., Fort Smith Stove works.

The jobbing lines in the city cover practically every commercial line, last year's business amounting to \$50,000,000. Fort Smith home-made products range from chairs to farm wagons; in fact, nearly every manufacturing product required by the people is attainable here. There seems to be no good reason why Fort Smith should not be a manufacturing as well as a consuming mart for a population five times here present size. Already her manufacturing output approximates \$30,000,000 annually. The resources adjacent to this city are abundant. With coal, natural gas, two navigable rivers, seven railroads in eleven districts, almost inexhaustible supplies of hard and soft timbers, high-testing shale clays, silica sands, building stones and other resources, there is no reason why the city should not double her population in the next three years. Added to these resources are the agricultural resources, which figure largely in the growth of the city. Cotton, corn, two crops of potatoes, forage grasses, small fruits, apples, peaches, cherries, plums and strawberries and peaches are raised hereabouts.

The first municipal publicity campaign ever undertaken in Arkansas, organized with a fund of \$15,000, has had considerable to do in attracting attention to Fort Smith. Many newspapers and trade journals were used in this publicity campaign, which was organized with the following personnel: B. D. Crane, John Vaile, Alf. G. Williams and Paul B. Bigger, the indefatigable secretary of the committee, representing organized commercial interests, and H. K. Albers, chairman; J. B. Parker and Louis Weinstein representing citizens at large.

The Fort Smith Commercial League, H. G. Spauldings, the new and efficient manager, is doing now most excellent work for the advancement of the city, and there have been many recent additions to the membership of the organization. C. W. L. Armour, one of the leading real estate agents of the city, says:

"In no section of the South or Southwest are there such splendid opportunities for the investment of judicious capital in real estate as will be found in Fort Smith.

MODERN FORT SMITH BUILDINGS.



SPEER HARDWARE BUILDING.



HOTEL GOLDMAN.

When it is taken into consideration that there are over 1200 families in Fort Smith which do not pay in excess of 25 cents per month for their supply of natural gas, and the average fuel cost for a family for cooking and lighting is 48 cents, it can readily be seen why people are looking this way for homes. The real estate sales recorded during the past year amounted to over \$1,500,000, the total sales reported being well over 780, is an indication how really is being sought after in this city."

Hon. Clifton R. Breckinridge, Ambassador to Russia during President Cleveland's administration, and now president of the Arkansas Valley Trust Co. at Fort Smith, says:

"The growth of the Southwest during the past 10 years is one of the most striking achievements in our industrial history, and great as it is, it is just getting well started. What is the 'Southwest?' It is all that vast country south of the Missouri and Kansas line, west of the Mississippi River and east of the Rocky Mountains. The outer rim is well known, in part at least, to the world at large. But the great interior, nearly equal to all of Europe, exclusive of Russia, now supports some 10,000,000 people, and is easily equal to ten times that number. It has been filling up with railroads and farms and people. Texas alone is larger than the German Empire, and can and will support a larger population.

"During all the past this vast country has been producing for the most part raw material and buying its manufactures from the outside. Yet here, too, a change has been taking place, and the time for more rapid concentration has come. Here is the field that the MANUFACTURERS' RECORD covers. The history of the States west of the Alleghenies and east of the Mississippi River is here repeating itself, only upon a larger scale, at a more rapid rate, and varied by local conditions.

"Manufactures must wait until trunk lines of railway are established and the centers of commerce, population and material are determined. The trend of events must be clear to them, for they cannot come and go as a settler with only his wagon and team.

"Here at Fort Smith is a point evidently marked by nature and chosen by man as a great seat of manufacturing and trade. Halfway between Kansas City and the Gulf of Mexico, as far west of Memphis as Kansas City is from St. Louis, beautifully situated on the second largest tributary of the Mississippi River, unequaled as a center of coal, timber and other need-



FIRST NATIONAL BANK.

ful materials, with trunk lines of railway leading north, south, east and west and tributary lines in abundance, this city, long held back by the reservation of Indian Territory, now a part of Oklahoma, is moving on with steady and strong steps. Its manufactures have grown until now the output is rated at \$300,000,000 a year, and people on the outside are taking notice.

"For instance, the wagons made here acquired a high reputation. The famous John Deere Company found that it needed a plant in the Southwest to supply its large and increasing trade in that great section. They bought out the home company, which had been a success in every way, increased it from a \$300,000 to a \$550,000 company, are now turning out 10,000 wagons a year and expect soon to make the output 15,000 a year.

"A stove concern from the East has begun a plant, and in a few weeks it will

be in full operation. A large concern from Cleveland, O., has chosen its site and prepared to make this its chief seat of production, supplying finished products for the Southwestern trade and partly-finished stuff for the Cleveland factory. And so it goes, with other instances, with inquiries coming in numbers daily and the old plants greatly enlarging their production. With it all there is no excitement. The people are a hard-headed, solid sort. They give good advice and a square deal to newcomers, but this is not a place for a man to pick up something for nothing. And yet another evidence of what I am talking about is the action of the Missouri Pacific Railroad. It has owned a belt line for years and done but little with it. Now it has waked up. It has located a special representative here to handle factory propositions. In the meantime another belt line, much farther out, has been taken up

by local men, for it is evident that the inner line is suited only to certain classes of industries.

"The Commercial League, comprising nearly 600 of the representative men of the city, is a general clearing-house for new propositions that need its assistance. They furnish needed information and sift propositions carefully before they are recommended to investors.

ALEXANDER HELPER.

MUSKOGEE'S MANY ACTIVITIES.

Wide Range of Developmental Enterprises.

[Special Cor. Manufacturers' Record.]

Muskogee, Okla., March 31.

Development work in various lines in Muskogee since January 1 of the present year indicate that beyond a possible doubt this will be the most active 12 months in the history of this city. There are now pending before the Muskogee Commercial Club the following propositions, which have been financed to such an extent that success is no longer in doubt:

1. A 10-story modern fireproof hotel to cost \$250,000; the amount required to be raised from local citizens already subscribed.

2. The State Fair Association organized, with a capital stock of \$50,000; amount subscribed, \$32,000.

3. Muskogee, Tulsa & Wagoner Interurban car line, contemplated 180 miles of track; amount necessary for preliminary work being all subscribed, and report on the physical features of the proposed line now well under way by Mr. E. W. Raymond of Philadelphia, an authority on interurban construction.

4. The Webber's Falls & Warner Steam Railroad, connecting Webber's Falls Valley with the Midland Valley Railroad at Warner. Bonus required of Muskogee assured.

5. There was organized in this city last week the Muskogee Industrial Co., with a capital stock of \$250,000, with a directory of 21 of the most prominent financiers in this city. The object of this company is to take over acreage adjacent to the city to be used as a nucleus for stock subscriptions and bonuses to industrial plants seeking locations here in the heart of the Mid-Continent oil and gas belt.

A report to the secretary of the Commercial Club from the office of the city engineer contains the following data relative to public work now going on in Muskogee under that department: Water-works system, \$165,000; storm-sewer system, nearly completed, \$250,000; sanitary sew-

ers, nearly completed, \$50,000; sanitary sewers, advertised to be let, \$15,000; asphalt paving under construction, \$550,000; macadam paving under construction, \$40,000; paving coming up to be let soon, \$75,000. More than half of the paving under way will be completed within 60 days.

Construction work has been completed on the Surety Building, a modern eight-story fireproof structure, at a total cost of \$165,000, and all floor space is now occupied.

On February 15 tenants began to move into the modern seven-story office building constructed by Flynn & Ames at a cost of \$140,000, and all available floor space has been taken. The completion of these buildings adds a total of 330 office rooms to the city.

The sixth story is now being added to the Equity Building, which is of reinforced concrete construction, and tenants have been secured for all the present available floor space.

Work is progressing rapidly on two new fire stations, the contracts for which were recently let by the City Council. These, when completed, will give the city five permanent fire department stations, located so as to distribute the fire protection to all parts of the city.

Plans are completed for the construction of a new freight depot by the Missouri, Kansas & Texas Railway Co., the same to be 45x510 feet dimension.

The Armour Packing Co. has purchased ground in the city and will at once begin the erection of a large cold-storage plant in what is known as the industrial district, with trackage facilities, and it is the intention of the company to make of this city the distributing point for Eastern Oklahoma.

The Pioneer Telephone Co. is completing the work of laying an underground conduit system under the streets of the city at a cost of \$75,000.

The Muskogee Electric Traction Co. has announced through its local management that within 10 days work will begin on several extensions of the street-car service at a cost estimated at \$200,000.

Mr. H. B. Spaulding, president of the Commercial Club, is completing a steel bridge across the Arkansas River at a total cost of \$40,000.

Work is being actively prosecuted on a six-story office building, reinforced concrete, by Revell & Spangenberg.

The Wilson Furniture Factory, recently located in this city, will move into its new building within the next 20 days, work on which is practically completed.

Public announcement has been made by the financial agent of the Woman's Methodist College that within a short time work will be started on an administration building for the college, same to cost \$100,000. This building will be erected on the site of the old United States agency, west of the city, one of the most historic spots in old Indian Territory.

The City Council has taken over the Woman's Hospital building in the southwest part of the city and is finishing the same at a cost of \$20,000, and will make of it a city hospital.

Work is progressing actively on the \$50,000 family hotel, the proprietors of which are Messrs. Torrains & Johnson.

The Trinidad Asphalt & Manufacturing Co. of St. Louis has designated this city as a distributing point for its products, supplying the eastern section of Oklahoma from this point.

The Gamewell fire-alarm system is now being installed with 45 alarm boxes, and the fire equipment has been added to by the purchase of more than \$50,000 of fire-fighting apparatus, consisting of an automobile hose wagon, chief's auto, same be-

ing equipped with chemical apparatus, a 75-foot aerial truck, an automobile chemical and hose wagon.

Announcement has been made that beginning the 16th of next month Gustavus E. Ivey will begin the publication in this city of an Indian Home and Farm Journal which will be printed partly in the Cherokee, Choctaw and Creek languages, and will be the only publication of its kind in the world. The announced policy of this publication is the protection of the Indians of the five civilized tribes.

The Crane Plumbing & Supply Co. has purchased business property in the industrial district and will at once begin the erection of a three-story supply house and make Muskogee its distributing point for Oklahoma.

Work is progressing rapidly on the \$250,000 high school in course of construction in East Muskogee, which building, when completed, will be one of the finest school buildings in the Southwest.

In addition to the buildings enumerated above, there are not less than 25 two, three and four-story business houses now under course of construction in the business district, and there is unusual activity in the building line in the residence section of the city.

In 1909 the bank clearings totaled \$20,454,541.97, an increase of 68.5 per cent. over 1908; bank deposits increased 63 per cent. and freight tonnage increased 62.5 per cent.

In 1909 there were 820 residences and 67 business blocks constructed in Muskogee, including one eight-story and two seven-story modern fireproof office buildings.

An indication of the increased activity in the Muskogee oil field is the transfer of more than \$200,000 worth of oil-producing land within sight of the city Thursday, March 10. These transactions include the transfer of leases on the Spaulding, Garrett and Denland, held by Moore, Leftwich and Alyea, to Walter Henning, representing St. Louis interests, for \$100,000; the purchase of a 70-acre lease from the Blair Oil & Refining Co. by the Prairie Oil & Gas Co. at \$70,000, and the purchase by the same parties of 14 acres of the Prindle farm for \$30,000, the land in question having a production, with the wells now flowing, of 1450 barrels natural oil per day. The land in question lies southeast and south and southwest of Muskogee, a portion of the property adjoining the city limits on the south and southeast.

The Commercial Club is a potent force in the development of Muskogee. H. P. Spaulding is president and C. B. Douglass is secretary. R. D. Sangster is the manager of the traffic bureau of the club, and is doing commendable work for the shippers of the city. Secretary Douglass says:

"The school census now gives us a population of 30,000. Our indebtedness is \$16,666,666.67, with a bonded indebtedness of \$1,059,000. Muskogee will give substantial encouragement to legitimate industrial enterprises seeking or desiring location here, and extends a hearty welcome to all newcomers. We are anxious for manufacturers to investigate our freight rates, labor supply and cheap fuel situation."

Muskogee exemplifies the twentieth century push and energy in all lines of human endeavor, and the consensus of opinion is that the population of this city will be 60,000 in 1912.

ALEXANDER HELPER.

Under the inspiration of inquiries made by the Chamber of Commerce of Natchez, Governor Noel of Mississippi has, it is announced, agreed to call a State convention on immigration.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

DISPATCHING BY PHONE.

Southern Railway to Handle Its Trains by New Method on Greensboro-Lynchburg Division.

The Southern Railway is putting into service one of the most modern equipments in this country for dispatching its trains by telephone. The division being equipped extends from Greensboro, N. C., to a little beyond Lynchburg, Va., comprising about 124 miles of road, with 36 way stations.

The equipment on the Southern road is of the latest type furnished by the Western Electric Co. and employing Gill selectors. Not only are the trains handled by the telephone over this busy division, but the regular message work on the line, with which we have all been so familiar and which has heretofore always been taken care of by telegraph, is now being accomplished by means of the telephone.

Besides the train wire and the message wire, two heavy copper circuits over which they can talk even better than on the commercial long-distance telephone line, the Southern road is also equipping its block wires with telephones, so that train movements from one block to the next are controlled by the tower man by word of mouth, instead of telegraphic signals.

The equipment installed is most interesting, even to those totally unfamiliar with the technicalities of telephone and telegraph work. In front of the dispatcher is a cabinet containing 36 keys, one for each way station on the line. When he wishes to call a way station he gives that particular key a twist and as a result a mechanism is started which rings the bell of that particular station and of no other on the line. This is accomplished by means of a piece of apparatus installed at the way stations, known as the Gill selector, and by its use it is possible to pick out from a number of signals coming over a line the one which calls that particular station alone.

At the way stations are two small boxes with rows of holes down their front, these being technically known as "jacks" in telephone parlance. By means of one of these boxes and the plugs which are attached to it the dispatcher can order his operators to patch around a break in the line, if such a thing happens. He can shift the telephone apparatus at that office from one circuit to another, and he can make all the ordinary simple tests which are customary on such a line.

With the other box the operator can connect his telephone set either to the dispatcher, to the message operator, to the block north of him or south of him, or to a private line which may run to the nearest roundhouse or shops, and he can also with this little box connect the dispatcher or the message operator to any of the same points.

Furthermore, if the block towers or the roundhouse wants to call the nearest way station, or if they want to speak to the train dispatcher, they can ring up the way station and display in front of that operator a little circular red target to attract his attention. This target can be connected to a bell, so that if the operator is away from his desk he may throw the bell into circuit and get an audible signal, together with the visual one.

Telephone train dispatching is an issue which at present is being extensively taken up by the railroads in the South, and on many of the roads extensions to this type of service are being installed as rapidly as the equipment can be obtained. The Western Electric Co. reports that it is being

rushed to the point of requiring more equipment to handle the railroad orders for dispatching purposes and the universal satisfaction which has been obtained from the telephone marks most auspiciously its entrance into a brand-new field.

EXTENSIVE TEXAS PLAN.

Projected Line from Matagorda Bay to San Antonio and Pecos City.

The Palacios, San Antonio & Pecos Valley Railway Co., recently organized at Palacios, Tex., proposes to build a line from Palacios via San Antonio to Pecos City, about 500 miles, through rolling country, and will probably begin preliminary survey this spring. H. W. Dean, secretary and general manager, writes that the road will be built without doubt.

A circular describing the object of the promoters of the line says that they will build a standard-gauge road to meet the demands for railroad facilities along the contemplated route. The line will give Palacios connection with the St. Louis, Brownsville & Mexico Railway, which is a few miles distant, and beyond there the route to San Antonio is through some of the richest of Texas agricultural territory, which requires transportation facilities, particularly to the coast. Connection will, of course, be made at San Antonio with the various trunk lines there. On the line from San Antonio to Pecos the country has no transportation facilities, and the new road will give it a direct route. At Palacios 40 acres of land has been secured for terminal and depot facilities, this being situated on the water front on Matagorda Bay, where piers will be constructed.

The officers are John P. Pierce, president; W. S. Baldwin, vice-president; W. H. Brooks, second vice-president; Thos. H. Bonner, treasurer; H. W. Dean, secretary and general manager. Others interested are D. L. Stump, S. T. Best, Chas. Clayton and D. W. Grant.

New Equipment, Rails, Etc.

The Kinder & Northwestern Railway Co. will be in the market for two locomotives of about 35 or 40 tons weight, either moguls or 10-wheelers. About 30 or 40 skeleton logging cars will also be purchased. The company has already bought a small engine for tracklaying. Robert J. Wilson of Kinder, La., is vice-president.

The South Georgia & West Coast Railway has ordered two 10-wheel freight locomotives from the Baldwin Locomotive Works, Philadelphia, to be delivered between July and October; also 1400 tons of 55-pound Bessemer rails from the Maryland Steel Co., Sparrows Point, Md.

The Colorado & Southern Lines have ordered seven switching locomotives from the Baldwin Locomotive Works and 300 gondola cars from the Pressed Steel Car Co. of Pittsburg, Pa., and 200 stock cars, 300 box cars and one dining car from the Mt. Vernon Car Co. of Mt. Vernon, Ill.

The Southern Equipment Co., W. G. Alford, manager, North Birmingham, Ala., will soon purchase 25 miles of 56-pound rails, complete with splice bars and bolts; also sufficient spikes, about 30 switches with ground hand throw, about 30 frogs to suit the rails, about 20,000 flat tie plates, about 30 tons of No. 0 round trolley wire, 22 tons of No. 00 waterproof feed wire, with hangers and insulators. It will also buy considerable structural steel for bridges and buildings, and some steel reinforcing bars. In about 60 days complete equipment will be wanted for four power stations for an interurban line.

The Georgia Railway & Electric Co., Atlanta, Ga., is reported building 20 cars in its own shops.

The St. Louis & San Francisco Railroad has ordered from the American Lo-

omotive Co., New York, five Mallet compound engines.

The New Orleans (La.) Railway & Light Co., according to a press report, will purchase probably 50 cars.

The Missouri, Kansas & Texas Railway has ordered cars thus: 1000 box cars of 30 tons capacity, 200 automobile cars of 30 tons capacity, 325 gondola cars of 50 tons capacity and 100 flat cars of 50 tons capacity, all with steel underframes and all from the American Car & Foundry Co. of St. Louis. The same builders will also construct for the company 15 coaches, 15 chair cars, 6 combination mail and passenger cars and 10 baggage cars. The Mount Vernon Car Manufacturing Co., Mount Vernon, Ill., will build for the road 300 furniture cars of 30 tons capacity, 175 side-dump coal cars of 40 tons capacity and 50 standard cabooses. The Barney & Smith Company, Cleveland, O., will build five postal cars. The railroad has also ordered from the American Locomotive Co. five passenger engines (10-wheelers), 10 Pacific passenger engines, 20 freight consolidation locomotives, 20 mogul freight locomotives and 10 switchers.

The Missouri, Oklahoma & Gulf Railway has ordered from the Baldwin Works four consolidation locomotives.

The Chicago, Rock Island & Pacific Railway has ordered two 70-foot gasoline motor cars from the McKeen Motor Car Co., Omaha, Neb. It has also ordered 25 cabooses from the Mount Vernon Car Manufacturing Co. The road is also reported in the market for 800 box cars of 40 tons capacity, 500 stock cars of 40 tons capacity, 200 ballast cars of 50 tons capacity, 250 automobile cars 40 feet long and 250 furniture cars 50 feet long, all to have steel underframes. The company is also still in the market for 250 refrigerator cars, according to a current report.

The Pennsylvania Railroad, it is reported, will purchase 100 coaches, 10 combination cars, 50 suburban cars, 10 suburban combination cars, 5 express horse cars for its Western lines, and 65 cars of different patterns for its Eastern lines. The company will also build 105 locomotives at its own shops.

The Louisville & Nashville Railroad has ordered 1200 tons of bridge steel, according to a market report, from the American Bridge Co., New York.

The Virginian Railway, says a report from Norfolk, will soon place an order for 33 additional locomotives.

The Vandalia Railroad of the Pennsylvania system has ordered 800 steel hopper cars of 50 tons capacity from the Cambria Steel Co., Cambria, Pa., and 50 steel underframe stock cars from the Standard Steel Car Co., Pittsburgh.

The McKeen Motor Car Co., Omaha, Neb., is reported to have received an order for three 70-foot gasoline motor cars for the Santa Fe system and two similar cars for the St. Joseph & Grand Island Railway.

The New Orleans, Texas & Mexico Railway (Frisco lines) is reported to have ordered from the Baldwin Works 13 consolidation engines, 5 Pacific engines and 5 switchers; from the American Locomotive Co., 12 consolidated engines.

A dispatch from Wichita Falls, Tex., says that the Wichita Falls & Northwestern Railway has ordered several large locomotives from the Baldwin Works and 100 cars from a St. Louis factory.

Contract is reported made with Frank Avery, president of the Armour Construction Co. of Kansas City, which will build the Kansas, Lawton & Gulf Railway, to also furnish equipment and material. J. M. Bellamy of Lawton, Okla., is president of the line.

The Chicago, Rock Island & Pacific Railway is reported getting prices on 50

locomotives, 25 consolidation and 25 passenger.

The Gainesville, Oklahoma & Western Railway Co., which proposes to build 100 miles of line from Bridgeport, Tex., to Madill, Okla., via Gainesville, Tex., is in the market for locomotives, cars, rails, ties and other material. R. E. Thomason is secretary at Gainesville, Tex.

Santa Fe Financing New Construction

The Atchison, Topeka & Santa Fe Railway has decided to issue nearly \$44,000,000 of new convertible 4 per cent. bonds, and, according to an official statement, they are for the purpose of aiding in the work of enlarging the capacity of the system. The statement says that the territory served by it is developing with extraordinary rapidity, and the largely-increased business already in sight urgently requires these improvements and insures a very large increase in earnings.

It is further stated that the company is expending more than \$18,000,000 for new equipment, and it is building nearly 600 miles of additional railroad in Texas to serve a very extensive territory that is now almost entirely without railroad facilities. Important parts of this new mileage are expected to be in operation within a year.

The new lines referred to in the official statement were recently described in MANUFACTURERS' RECORD, principally the route between Coleman, Sweetwater, Lubbock and Texico, which will make a short route between the Gulf and the Pacific. In addition to this main line there are important branches of considerable length, and construction on all is being pushed with vigor.

Ardmore to Chickasha and Lawton.

The Arbuckle & Western Railroad Co. of Ardmore, Okla., proposes to build from that place to Chickasha and Lawton, a distance of 180 miles, touching Milo, Wheeler and Duncan, also on the route. A number of bridges will be required, about 17, but none over 100 feet long, as the streams to be crossed are small. While there is some rough country on the line, the land is generally level or rolling.

Oscar O. Ayres, the president, says that the capital stock will be increased to the full amount required to build the railroad in the near future, and the company will want material and equipment. His address at present is Olathe, Kans., but later he will make his headquarters at Ardmore, Okla. Others interested are M. M. Frye, vice-president; E. S. Ayres of Edgerton, Kans., secretary; W. T. Forsythe, chief engineer; J. R. Pennington, R. A. Hefner and J. A. Bivens of Ardmore.

The road when built will connect with the Santa Fe, the Frisco and the Rock Island at Ardmore, and at Chickasha with the Oklahoma Central, the Frisco and the Rock Island. It is not decided when bids will be received for construction.

New Railroad Enterprises.

Among the new railroads recently incorporated are the following:

South Carolina Western, to build a line connecting McBee, Darlington, Hartsville and Florence, S. C., 40 miles; capital \$20,000. The incorporators are W. R. Bonsal, Chas. Gibbons, Samuel Lawrence, S. O. Bauersfeld and J. E. Hancock, all of Hamlet, N. C. A survey has been made between McBee and Hartsville, 14 miles, and construction is to begin soon. Headquarters will be at Hartsville.

Livingston Terminal Co., chartered in Tennessee to build and operate railroad terminals and facilities. The incorporators are Geo. L. Wilkins and E. C. Knight, who are interested in the Overton County Railroad of Livingston, Tenn.; H. W.

Estes, C. J. Cullum, W. M. Breeding and W. W. Yeatman.

The McCrory Transportation Co., organized at McCrory, Ark., to build a railroad 16 miles long from McCrory into Jackson county. The officers are: President, B. Hailey; vice-president, E. A. Hamilton; secretary and treasurer, Bruce Keating.

Using a Gasoline Motor Car.

A dispatch from Sanford, Fla., says that a motor car has been put in operation on the railroad of the Sanford Traction Co. and the Sanford & Everglades Railroad Co. between that place and Cameron City, six miles. The car carries between 40 and 50 passengers and is driven by a gasoline engine of 60 horse-power, but a much larger car of the gas-electric type, seating 75 people, has been ordered for delivery on September 1. The new car will be able to pull other cars to accommodate a total of 250 people.

The report further says that the builders of the road are also its owners, and that those interested are S. O. Chase, J. N. Whitner, F. P. Forster, A. T. Rossetter and A. P. Connelly. The latter is secretary and manager. Mr. Rossetter is president of the Sanford & Everglades Railroad and Mr. Chase is president of the Sanford Traction Co.

While gasoline cars will be used for passenger service, steam locomotives are used for hauling freight. The line is being extended through an agricultural country.

Railroad to Gold Mines.

Charles W. Eckert of Lancaster, Pa., and others of a syndicate are reported to have purchased a small line between Tallapoosa, Ga., and Hopewell, Ala., known as the Vanderbilt Timber & Mining Co.'s railroad, and they are expected to extend it to Wedowee, Ala., and possibly much farther to Montgomery. At last reports the railroad was only six or seven miles long. It connects at Tallapoosa with the Southern Railway. Mr. Eckert is said to be president of the Gold Ridge Companies in Alabama, which own 1600 acres of land in Cleburne and Randolph counties, where gold mining is in progress. It is expected that the line will be extended to assist in developing the mining property and also for timber and other industrial operations on its route. Among others associated in the enterprise are W. W. Tompkins, C. S. Tompkins, George Drake and James Dunlop Smith of New York, and Milton K. Harr and Joseph F. Stevens of Philadelphia.

Gainesville to Madill.

The Gainesville, Oklahoma & Western Railway Co., which proposes to build from Bridgeport via Gainesville, Tex., to Madill, Okla., 100 miles, will have four steel bridges on the route over Clear Creek, Elm Creek, Denton Creek and Red River, respectively. The line lies through level and rolling country, and contracts will be awarded about May 20, at which time bids will be received for both construction and equipment. Connections will be made with the Rock Island at Bridgeport, Tex.; with the Santa Fe and the Missouri, Kansas & Texas at Gainesville, Tex.; with the Fort Worth & Denver City at Decatur, Tex., and with the Frisco at Madill, Okla. The directors are J. C. Whaley, president; H. W. Stark, vice-president; S. M. King, treasurer; R. E. Thomason, secretary; J. M. Lindsay, G. E. N. Ball, O. F. Scott, J. T. Edwards and Owen Saunders, all of Gainesville. The chief engineer is F. W. Truax.

Texas Railroad Statistics.

The Texas Railroad Commission has issued its eighteenth annual report, which shows that there are now 13,110 miles of

railroad in Texas, but, including all tracks—that is, second track and sidings—there is a total of 16,341 miles. All is standard gauge, excepting 22½ miles of narrow gauge on the Rio Grande Railroad. The capital stock of all lines is \$131,818,477; bonded debt, \$288,213,200. The report, which is for June 30, 1909, shows that the gross earnings for the fiscal year of all lines amounted to \$90,429,450. The total operating expenses were \$68,045,388, or 75¼ per cent. The income was \$22,593,742, an increase of about \$7,400,000 as compared with the preceding year. The number of railroad employees of all kinds in the State is 57,969.

Kinder & Northwestern.

The Kinder & Northwestern Railway Co. proposes to build a line from Kinder, La., 15 miles to a point in timber lands. This will include a single-span bridge about 60 feet long over the Calcasieu River. The route is through level country, and contract was let March 20 to J. Hugh Walker. It is expected to have 10 miles of line in operation by July 1. Connections will be made with the Frisco system and the Missouri Pacific. The company has purchased one small engine to use in tracklaying, and will be in the market for two new engines of 37 or 40 tons weight, either moguls or 10-wheelers. From 30 to 40 skeleton logging cars will also be required. The officers are A. J. Peavy, president; Robt. J. Wilson, vice-president; Geo. H. Byrnes, treasurer; Ernest H. Payne, secretary; Frank Shutts, chief engineer.

Buckhannon to Weston.

The Buckhannon & Clarksburg Electric Railway Co., recently chartered in West Virginia, contemplates building a trolley line from Buckhannon to Weston, W. Va., 15 miles, from which point it is expected that the Fairmont & Clarksburg Traction Co. will build a connection to Clarksburg. The first-named company is also considering the possibility of building a line from Buckhannon direct to Clarksburg, 28 miles, by a shorter route than via Weston and independent of connections with any other road. The country through which the line will run is rolling, and a preliminary survey will be made. The directors are U. G. Young, president; E. W. Martin, vice-president; W. H. Fisher, treasurer; G. O. Young, secretary, and R. I. Perrine.

Will Build Short Extension.

The Union Utilities Co. of Morgantown, W. Va., will acquire the Sabraton Railway, and an extension of the latter of two miles from South Sabraton to Dellslow, W. Va., will be constructed by the company's forces. The Union Utilities Co., which succeeded the Morgantown Electric & Traction Co., owns and operates the street railway in Morgantown and has five and one-half miles of standard-gauge track. It also operates the water-works and the electric-light plant, and supplies natural gas in that vicinity. Davis Elkins is president and H. R. Warfield treasurer and general manager.

Sale of a Street Railway.

The Fayetteville Consolidated Railway & Power Co. of Fayetteville, N. C., has been sold at auction by order of the court to Mrs. M. M. B. MacRae for \$67,000. The company owns a street railway, with cars, engines, etc., besides other property, including the right of way for a line to Hope Mills and land at Manchester, where a hydro-electric power plant is situated. The company furnishes power at Fayetteville for the municipal electric-light plant. After the sale is confirmed by the court there may be improvements. Mrs. Mac-

Rae, the purchaser, represented the estate of the late S. H. MacRae.

Street Car Improvements at Richmond

The Virginia Railway & Power Co. of Richmond, Va., has decided to carry out the improvements projected some time ago at a cost of about \$600,000, the work including a car storage and repair plant. The buildings to be erected are two car barns, at the reservoir terminal and at the terminal on 29th and P streets. One car barn at Manchester, sandhouse, oilroom, storeroom, blacksmith shop, paint shop, boiler-room, transfer table, etc. The construction will be done under the direction of C. B. Buchanan, general superintendent, and Calvin Whiteley, Jr., chief engineer.

Union Depot for Tampa.

The Tampa Union Station Co. has been organized at Tampa, Fla., to build a terminal for the use of the Tampa Northern Railroad, the Atlantic Coast Line and the Seaboard Air Line. It is expected that the building will cost from \$175,000 to \$200,000. W. B. Denham, general manager of the Tampa Northern, Tampa, Fla., was elected president, and E. B. Pleasants, chief engineer of the Atlantic Coast Line, Wilmington, N. C., secretary and treasurer. R. E. Boswell was chosen auditor.

Street Railway for Athens, Ga.

The Athens Railway & Electric Co. has been chartered at Athens, Ga., to build an electric-power plant and to operate street cars, capital \$1,050,000, and it is proposed to issue \$300,000 of preferred stock. The incorporators are John R. White of Whitehall, Ga.; J. Y. Carithers, W. S. Holman, A. H. Hodgson, C. D. Flanagan, Billups Phinizy, James White, J. M. Hodgson, J. W. Morton and W. T. Bryan, all of Athens.

Railroad Notes.

The Southern Pacific Company, according to a report from New Orleans, will operate its steamers twice a week this summer between New York and New Orleans, and five vessels will be engaged on the route.

The Ardmore Traction Co. of Ardmore, Okla., according to a press report, is to be disposed of at receiver's sale on May 2 by C. L. Byrne, receiver, under order of the court. There are nearly five miles of electric railway, a park and a 50-year franchise. The upset price is \$60,000.

The New Iberia & Northern Railway, according to a report from New Orleans, has completed 50 miles of its line between New Iberia and Port Barre, La., and will put it in operation immediately. The points touched en route are Loreauville, Parks and Arnaudville.

George D. Rosenthal of St. Louis, according to a dispatch from Jefferson City, Mo., is promoting an electric railway from there to Mexico, Mo., and has purchased a bridge over the Missouri River from the Jefferson City Bridge & Transit Co. It is reported that the structure, which is now used for wagons, will hereafter be used for electric cars.

D. T. Chesnut of Lawton, Okla., is promoting a novel sort of street-car service. The vehicles are large automobiles with a capacity of 30 or 40 passengers, and on roads where there is no pavement they will follow a track built of cement so as to insure smooth running. The service is for Lawton and points nearby, including College Addition.

It is announced that the Houston Business League of Houston, Tex., has already secured \$340,000 of subscriptions of stock in a proposed \$1,000,000 hotel for that city.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton, South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

New Southern Cotton Mills.

The first quarter of 1910 has witnessed creditable activity in the organization of companies to build cotton mills in the South. During January, February and March nine new companies were organized and three companies announced additions to their existing facilities. Of the three companies, two are adding 700 looms and one is a knitting company which will increase its capital stock to the extent of \$250,000 for the purpose of building a 10,000-spindle mill to supply the yarns consumed by its knitters. The quarter's total of spindles announced for installation is 143,500, and of looms 4500. This will involve an investment of capital to the amount of about \$3,600,000.

A tabulated list of the new and enlarging enterprises follows:

Name.	Location.	Spindles.	Looms.
Alabama.			
*Lowe Manufacturing Co.	Huntsville.	.....	300
Georgia.			
Senola Duck Mills.	Senola.	.....	.....
Villa Rica Cotton Oil Mill Co.	Villa Rica.	2,500	.....
		2,500	.....
North Carolina.			
T. F. Lloyd Mfg. Co.	Chapel Hill.	10,000	.....
Pickett Cotton Mills.	High Point.	12,000	300
Pinwin Cotton Mill.	North Wilkesboro.	3,000	.....
*Hannah Pickett Mills.	Rockingham.	.....	400
Amazon Cotton Mills Co.	Thomasville.	8,000	.....
*P. H. Hanes Knitting Co.	Winston-Salem.	10,000	.....
Inverness Mills Co.	Winston-Salem.	8,000	200
		51,000	900
South Carolina.			
Glencoe Cotton Mills.	Columbia.	5,000	.....
Panola Cotton Mills.	Greenwood.	10,000	300
Republic Cotton Mills (two mills in addition to one now under construction).	Great Falls.	75,000	3000
		90,000	3300
Total for first quarter of 1910.		143,500	4500
*Established mills enlarging.			

Southern Knitting Mills.

During January, February and March there was considerable activity in the organization of Southern knitting-mill companies. Thirteen companies were announced; 12 of these have an aggregate capital stock of \$674,500. The list of companies follows:

Name.	Address.	Capital stock.
F. M. Boyd.	Chester, S. C.	\$25,000
Euharlee Hosiery Mill.	Dallas, Ga.	10,000
Durham Hosiery Mills Co., No. 4.	Durham, N. C.	129,500
Durham Textile Mills.	Durham, N. C.	50,000
Frederick Knitting Mill.	Frederick, Okla.	100,000
Appalachian Mills Co.	Knoxville, Tenn.	50,000
Lee Hosiery Manufacturing Co.	Liberty, N. C.	50,000
National Hosiery Mills.	New Orleans, La.	50,000
Ooltewah Hosiery Mills.	Ooltewah, Tenn.	20,000
Robersonville Hosiery Manufacturing Co.	Robersonville, N. C.	100,000
Cherokee Hosiery Mills.	Rome, Ga.	30,000
Edie Hosiery Mills.	Sanford, N. C.	.....
		\$674,500

The River Falls Mill.

The River Falls Cotton Mill Co., J. W. Menefee, president, Graham, N. C., awarded its engineering contract to the Hydraulic Properties Co., 60 Broadway, New York, as stated last week. This contract calls for the engineering of the entire proposition, including the reinforced hollow concrete dam of Ransom type, the power-house, the reinforced concrete highway bridge, the installation of three 600-kilowatt alternators (60-cycle, three-phase) connected direct to three 900-horsepower water-wheels, transmission lines to

Graham and Burlington, and a cotton mill of 10,000 spindles for spinning 20s to 25s yarns, and 240 40-inch looms for weaving cloth.

The Hannah Pickett Addition.

The Hannah Pickett Mills of Rockingham, N. C., has awarded contract to T. C. Thompson & Bro. of Birmingham, Ala., and Charlotte, N. C., for the construction of the Pickett addition announced last month. This addition will be 100x235 feet, and is to be equipped with 400 looms manufactured by the Draper Company of Hopedale, Mass. The installation will enable the Pickett company to weave the yarns from its 10,080 ring spindles.

The Hamrick Addition.

The Hamrick Mills of Gaffney, S. C., will erect a two-story 250-foot addition to present building and install 15,000 ring spindles, 364 40-inch looms and other necessary machinery. This company has awarded all contracts for the enlargement, and will begin construction next week. It estimates the cost at from \$250,000 to \$275,000. The mill's present equipment is 10,240 ring spindles and 260 broad looms, manufacturing sheeting.

The Manchester Mill.

The Manchester Cotton Mills Co. of Rock Hill, S. C., will build an addition and install 100 looms. This company now has 18,200 ring spindles, 300 40-inch looms, etc., driven by steam and electric power on the production of ticking and yarn.

sey Hosiery Mills, recently sold by the Ely & Walker Dry Goods Co. of St. Louis to Mr. Massey and associates.

The plant has 210 knitting machines, dyeing and finishing equipment, etc., driven by electricity and producing seamless cotton hosiery.

The E. L. Shuford Mill.

The E. L. Shuford Manufacturing Co. of Lawton, Okla., has begun the construction of its plant, reported in February. It expects to have this 10,000-spindle and 300-loom mill ready for manufacturing next fall's cotton crop. The main building will be two stories high, 75x450 feet. J. E. Sirrine of Greenville, S. C., is the architect, and the Fiske-Carter Construction Co. of Worcester, Mass., is the contractor.

The Hanes Yarn Mill.

The P. H. Hanes Knitting Co. of Winston-Salem, N. C., will erect a building about 500 feet long, one story high, with monitor roof, for its recently-announced yarn mill. This mill will have about 10,000 spindles, and the company will increase its capital stock by \$250,000 in connection with the plan.

A \$15,000 Knitting Company.

W. H. Hite of Aiken, S. C., will organize a \$15,000 stock company to build a knitting mill operated by water-power.

Textile Notes.

Dr. J. J. France and Geo. Matthew King of Norfolk, Va., are interested in plan to organize company with capital stock of \$250,000 for erection of cotton mill.

The Chamber of Commerce of Shawnee, Okla., will announce later the promoters of the cotton mill reported last week. The plant is to have 10,000 spindles.

The recent report that the Standard Knitting Mill of Knoxville, Tenn., will double capacity, etc., was not correct. This company has no enlargement plans at present.

For Central and South America.

A. E. Weiss, New Orleans, La., writes the MANUFACTURERS' RECORD:

"I am writing to see whether your MANUFACTURERS' RECORD can obtain for me different catalogues of all descriptions of articles such as can be placed in the Central and South American markets, as I have continued demands for all products from different manufacturers in this country."

While peaches of Georgia will hold a large place in the public eye this year, they will not have an absolute monopoly. It is estimated that the Georgia pear crop will be worth at least \$200,000.

R. T. Rowland, secretary of the Fruit Growers' Association of Taylorsville, N. C., has published a leaflet designed to further apple-growing in the highlands of North Carolina.

It is reported that \$1000 an acre for a tract of 80 acres of land planted in pecan trees 10 years old has been refused by the owner, who lives near Albany, Ga.

The board of directors of the Business Men's League of Little Rock, Ark., will contribute \$500 toward \$1500 for the purchase of a site for an \$8000 cannery.

An order for more than 1,000,000 feet of lumber has been placed by Cuban concern with the Cummer Lumber Co. of Jacksonville, Fla.

Eighteen companies, representing an aggregate investment of \$394,000, were incorporated in the Birmingham district in March.

and finishing machinery, driven by electricity, for a daily output of from 100 to 125 dozen pairs of hose. It was reported incorporated last week with a capital stock of \$50,000. The knitters have been ordered, but not the dyeing and finishing machinery.

The Massey Hosiery Mill.

The Massey Hosiery Mill of Columbus, Ga., has been incorporated with a capital stock of \$50,000 by J. D. Massey, C. L. Perkins, G. Gundy Jordan and R. C. Jordan. This company will succeed the Top-

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Good Building Record.

Figures available from several Southern and Southwestern cities indicate that building operations for March were very active, and in a number of localities big increases have been made as compared with previous months. As shown by the report of the building inspector of Richmond for the month, the total value of structures for which permits were issued exceeded that of last March by \$892,000, the figures for 1910 amounting to \$339,034, as against \$330,105 for 1909. It is noteworthy that few buildings of a large character were authorized, most of them being residences. In Atlanta permits were issued during the first three months of the year to a value estimated at \$1,896,355, and in March alone it is stated that construction was begun on buildings valued at \$1,001,911, a record in excess of the combined valuations of January and February. A striking feature of the construction record for March is the large number of dwellings and apartment-houses which are being erected. Building was very active in Charlotte during the month, the total valuation of structures for which permits were issued being estimated at \$148,700. Among the largest permits was one to the Buckeye Oil Co. for the erection of a plant to cost about \$50,000. Operations in Birmingham were valued at \$448,597, as compared with \$158,847 for March, 1909. For the first quarter of 1910 the estimated value of building construction shows an increase of \$221,908 as compared with the same period last year. The building report for Memphis shows a total of 371 permits and represents a valuation of \$422,257. As compared with the record for last March, these figures show an increase of 124 in the number of permits issued and an increase in value of \$45,453. In Knoxville the value of structures for which permits were issued during the month amounted to \$100,007.50. A total of 239 permits was issued in Dallas during March, representing a value of \$582,377. The structures included 13 brick business buildings, valued at \$299,000; 157 frame residences, valued at \$214,727.56; alterations and repairs, valued at \$65,530, and a number of miscellaneous buildings. The value of permits issued in Little Rock during the month was estimated at \$219,034, which exceeds the record of March, 1909 by approximately \$133,000. The total number of permits was 317, as compared with 303 for March, 1909. In Kansas City building operations were valued at \$1,622,398 for March, a decrease as compared with the corresponding month last year of \$86,537. This falling off has been in the construction of frame and veneer buildings, as the value of brick and stone structures, which included many apartment-houses, amounted to \$823,900, an increase over March, 1909, of \$117,850. A total of 305 permits was issued in Baltimore for the month, representing a cost of construction of \$579,096, and a summary of operations from January 1 to March 31, inclusive, indicates a value of \$1,357,996.

National Lumber Manufacturers.

The annual convention of the National Lumber Manufacturers' Association will be held at New Orleans on April 19-21. Among the features of the meeting will be addresses by Prof. Frederick Rogers of Yale University; Henry Solon Graves, chief forester; Capt. J. B. White, Kansas City; Col. Charles Janvier, George M. Reynolds and James D. Lacey, New Orleans and Chicago, and others. Officers

of the association include Edward Hines, Chicago, president; E. G. Griggs, Tacoma, first vice-president; W. B. Stillwell, Savannah, second vice-president; J. A. Freeman, St. Louis, treasurer; George K. Smith, St. Louis, secretary, and Leonard Bronson, Chicago, manager.

Shipments from Fernandina.

The total value of shipments from Fernandina during March was estimated at \$1,105,760. They included 11,306,000 feet of lumber shipped coastwise, valued at \$339,180; 1,267,000 feet shipped foreign, valued at \$38,010; 19,910 tons of phosphate, valued at \$199,100; 204,500 gallons of turpentine, valued at \$122,400; 65,517 barrels of rosin, valued at \$393,102; 12,815 pounds of palmetto leaves, valued at \$807, and 67 poplar logs, valued at \$2700.

Wholesale Dealers Organize.

At a meeting of wholesale lumber dealers at Birmingham last week an organization was effected with the following officers: W. B. Dickerson, president; H. B. Wood, vice-president; H. S. Smith, second vice-president, and Thomas S. Forbes, secretary.

The Hardwood Manufacturers' Association of the United States, Lewis Doster, secretary, Cincinnati, has issued its official grading rule book, containing the new rules adopted at the association's last annual meeting for the standard grading of poplar, oak, gum and other hardwoods, classification and sales code.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

Bristow, Okla.—City voted \$5500 bond issue for street improvements.

Burlington, N. C.—City voted \$15,000 bond issue for street improvements.

Granger, Tex.—City voted \$15,000 bond issue for street improvements.

Mebane, N. C.—City voted \$15,000 bond issue for sidewalk and street improvements, including one mile of macadam street and cement sidewalks; has additional \$5000 for expenditure.

Bonds to Be Voted.

Baton Rouge, La.—East Baton Rouge will vote on \$100,000 bond issue for road improvements.

Mobile, Ala.—City votes November 8 on \$500,000 bond issue for road construction.

Union City, Ga.—City votes April 8 on \$20,000 bond issue for street and other improvements.

Contracts Awarded.

Attalla, Ala.—City awarded contract at \$8924 for 5200 square yards of artificial-stone sidewalk and 8000 linear feet of artificial-stone combined curb and gutter.

Brunswick, Ga.—City awarded contract at \$1.55 per square yard for 7200 square yards of paving, with brick and pitch filler.

Chattanooga, Tenn.—City awarded contract, aggregating about \$65,000, for asphalt roadway, asphalt paving, granite curb, concrete sidewalk, grading, etc.

Fort Worth, Tex.—City awarded contract for paving two and one-half miles of streets.

Henderson, Ky.—City awarded contract at about \$22,000 for laying 31 blocks of granitoid sidewalks, curb and gutters.

Lake Charles, La.—City awarded contract for seven and one-half miles of cement and concrete sidewalk and curb; approximate cost, \$50,000.

Leesville, La.—City awarded contract

at \$0.165 per square foot for 30,000 square feet of concrete sidewalks.

Raleigh, N. C.—City awarded contract at \$46,750 for asphalt paving.

Richmond, Va.—City awarded contract for \$10,000 worth of curbing and guttering.

Contracts to Be Awarded.

Birmingham, Ala.—Tennessee Coal, Iron & Railroad Co. will construct two miles of road to cost \$5000.

Houston, Tex.—Harris county decided to pave 71 miles of road with shell and gravel, cost being provided out of \$500,000 bond issue previously announced.

Lake City, Fla.—City opens bids April 25 for constructing five miles of cement sidewalks.

Macon, Ga.—City opens bids April 19 for paving.

Newcastle, Ky.—Henry county will construct 41 miles of roads; opens bids April 12.

Richmond, Va.—City will invite bids for paving with granite spalls and for granolithic curbs and gutters.

Richmond, Va.—City will appropriate about \$71,500 for various street improvements, curbing, guttering, etc.

Winston-Salem, N. C.—Forsythe county and Yadkin county will construct five miles of macadamized road.

To Pave 71 Miles of Roads.

Authorities of Harris county, Texas, selected last week the roads, aggregating 71 miles in length, which will be paved with shell and gravel under the \$500,000 bond issue that was recently voted by the county.

For a \$500,000 Bond Issue.

It has been decided that Mobile county, Alabama, shall vote on November 8 upon the question of an issue of \$500,000 of bonds to be used in providing for the county a system of modern, permanent highways.

MINING

BROAD COAL CAMPAIGN.

Facts of Power Production to Be Furnished to Customers.

L. S. Evans, general manager Clinchfield Fuel Co., Spartanburg, S. C., writes to the MANUFACTURERS' RECORD:

"The Clinchfield Fuel Co. has established headquarters at Spartanburg, S. C., because it is the southern terminal of the C. C. & O. road. A further reason is its geographical position with reference to our principal customers. Being at the end of the railroad, we can more closely watch the movement and distribution of cars to connections here and render better service to the customer. Within a few hours we can visit the remotest of our customers, and most of them are close by, making quick communication possible.

"The output of the mines of the Clinchfield Coal Corporation will reach the market exclusively through the Clinchfield Fuel Co. Our organization will be as complete as we can make it with a view to very extensive business and the development of export trade through Charleston, S. C., with Mexican, Cuban and South American ports, as well as coastwise domestic ports south of Charleston.

"Believing a coal company should take a direct interest in its customers with reference to power production, we have added a consulting department, the purpose of which is to show our customers how to get most economical results in their boiler-rooms. This involves a consideration of boiler design and arrangement, and we have placed at the head of this department Mr. Walter T. Ray, under whose direction the United States Government has spent thousands of dollars in the past several years in making fuel tests;

first at St. Louis Exposition, later at the Jamestown Exposition, and more recently at Pittsburg, Pa. It is likely no other man has had the opportunity for such thorough and comprehensive experiments and studies on this subject as Mr. Ray, and he has lately severed his connection with the United States Geological Survey to join our forces. Mr. Ray will make personal examinations of boiler plants and power plants for our customers if they so desire, and give them the benefit of his knowledge and experience. Because great progress has been made in this branch of study during the last year or two, the information has not been available for the use of plant owners in purchasing and installing boilers, so that many plants could be altered or changed at moderate cost at a very considerable saving. As an instance, Mr. Ray has made suggestions to one plant burning a moderate amount of coal, about 100 tons per week, whereby a saving of at least \$50 per week can be made. Undoubtedly this can be done in many plants, and the Clinchfield Fuel Co., through this department, will render very valuable assistance to the Southern territory in which it works, and will certainly be the means of saving to that territory thousands of dollars per annum. It is not an exaggeration to say that a saving of upwards of \$1,000,000 per annum is possible by correcting wrong practices and wasteful methods. It is no reflection upon the plant owners that these conditions exist, because, as stated, a great deal of this information is recent, and therefore not known to them.

"Modern terminals will be constructed at Charleston, S. C., enabling us to handle coal with great dispatch and in large quantities.

"We expect to handle the ensuing 12 months 2,000,000 tons of coal, which amount will be increased annually, as the Clinchfield Coal Corporation is pushing development work rapidly and extensively. In order to standardize our product and keep the preparation up we have established a chemical laboratory at the mines, where an expert chemist is making daily analyses of samples taken from all sections of our mines. It has been demonstrated that Clinchfield coal is a high-grade fuel, and we expect to maintain its reputation."

Will Increase Production.

A statement outlining the plans of the Thacker Coal & Coke Co., Thacker Mines, W. Va., increasing its mining facilities, has been received by the MANUFACTURERS' RECORD. The company is opening four new mines on Grapevine Creek, and will develop the Thacker seam of coal, which is said to be five feet thick at that point, free from impurities and having no partings. Equipment to be installed includes two 200-kilowatt Allis-Chalmers generators, direct connected to Buckeye engines; six Erie boilers of 150 horse-power each, and other machinery. The coal will be handled by retarder conveyors and brought to one tippie, at which five loading tracks for the different grades will be constructed, including a box car loading track. The tippie and retarder will be designed and constructed by the Link-Belt Company of Philadelphia, and the mines will be equipped with electrical mining machines, Sirocco fans and electrical haulage. The plant will be modern in every detail, and will cost about \$100,000. Its daily production will be approximately 3000 tons.

Citizens of Plaquemine parish, Louisiana, are planning a campaign for an issue of bonds to construct a shell road from the St. Bernard parish line to Pointe a la Hache, 45 miles below New Orleans.

The reliable and absolute control of the furnace heat under all conditions allows the operator to force the heat and work the furnace to its maximum capacity, thus increasing the output without any risk detrimental to the product.

The automatic features of the underfeed stoker produce a fuel combustion that prevents the liberation of free oxygen in the furnace, thus eliminating the cause of scaling of the pairs and sheets. The improved furnace produces as clean sheets of all sizes, as well as black plate, as with any existing method.

Reports received from plants using the stoker-operated sheet and pair furnace state that the use of the stoker in connection with the combination furnace results in softer and consequently less breakage of rolls.

The success of the improved Bailey combination furnace is due to the American automatic underfeed stoker attachment.

The stoker introduces coal into the furnace without admitting cold air over the fire to chill the gases, which lowers the efficiency. The coal is burned in such a way that the volatile gases are thoroughly consumed, utilizing the highest possible percentage of the heat of combustion, with a correspondingly increased efficiency. The fire can be cleaned while the stoker is in operation without decreasing the furnace temperature or lowering the efficiency in any way. The air and coal may be so controlled as to give the proper heat for rolling, or a smoky reducing flame for finishing sheets.

The American stoker attachment to the Bailey furnace consists of a special screw conveyor, mechanically driven, which conveys the coal from a hopper outside of the furnace into a retort or receptacle inside. The incoming coal forces the coal in the retort upward into the fire, over tuyeres of air blocks, through which the requisite amount of air for combustion is introduced at the point where the most air is needed; that is, where the coal bed is thickest.

The coal is fed into the hopper, carried by the conveyor into the magazine, which it fills, overflows on both sides and spreads upon the sides over the grates, which are modified to meet varying coal conditions. The coal is fed slowly and continuously, and approaching the fire in its upward course it is slowly roasted and coked. The released gases, mingling with the fresh air entering through the tuyeres, are ignited and the coal is delivered as coke on the side grates. The continuous feeding gives a breathing motion to this coke bed, thus keeping it open and free for the circulation of air.

Every pound of coal fed into the hoppers passes through this gas-making process. The American stoker as used in connection with the Bailey furnace, or in heating furnaces in general, constitutes, with the firebox, an efficient gas producer. It practically reduces the coal to gas and coke, and, passing all products of combustion through an incandescent coke bed, insures freedom from smoke and soot.

Wherever coal is used for fuel the American stoker is guaranteed to do the stoking cheaper and more evenly than hand-firing.

Coal is supplied to the stoker through the hopper outside of the furnace. Immediately under the coal hopper, and communicating with it, is the conveyor pipe. A screw conveyor or worm is located in the conveyor pipe, and conveys the coal into the magazine or retort inside of the furnace.

The stoker, as supplied with the Bailey furnace, is equipped with eccentric driving mechanism, eccentric rod and eccentrics. A spring barrel forms part of the eccentric rod. In this part is a double coil compression spring, so arranged that should iron or other foreign substance get in the

hopper and jam the screw conveyor the spring will compress, allowing the rod to lengthen. This effectually prevents breakage of conveyor or eccentric.

If desired, the stoker will be furnished with an independent steam drive, in which the ratchet is driven by a small reciprocating steam motor.

Under the conveyor pipe and retort is located the wind box, with its opening to the front for connection to the piping for the air supply furnished at low pressure by a blower. The upper edge of the retort is surrounded by detachable tuyeres, or air blocks, communicating with the wind-box below, the blocks being furnished with openings for discharging the air into the coal.

The distribution of air to each stoker is regulated by a wind gate located at the mouth of the wind chamber.

Special attention is called to the absence of a multiplicity of lever arms, oscillating bars, moving fingers, etc., and to the absence of water grates and tubes exposed to the fire.

In the American stoker the tuyere blocks alone come in contact with the fire, and these are protected by the constant circulation of air, and can be readily removed and replaced. Wear on the conveyor is slight because of its slow speed. The motor when used requires no more renewals than an ordinary feed pump.

While every Bailey furnace constructed so far has not been tested as to tonnage, the results attained warrant a guarantee that the furnace will turn out material of the best quality faster than the mill can handle it.

It is further guaranteed that the improved furnace will not cause scaling of the pairs and sheets any more than the ordinary well-built furnace.

Geo. J. Eagan, 401 People's Bank Building, Pittsburg, Pa., has been appointed sole licensee for the Bailey combination sheet and pair furnace, and he invites correspondence on the subject.

The Covell Machine.

In the Covell automatic saw swage and shaper it is believed there is offered a machine that will prove beneficial and economical in every respect. (See two accompanying views.)

This machine is automatic in its operation in every respect, and does not require constant attention.

The method employed to produce the Covell swage is to roll or draw the metal from the back of the tooth to the point, thereby producing a swage that is sharp, requiring little grinding, and that has the cutting edge or swage backed up with metal, which increases its length of service.

By the Covell method of swaging the metal is rolled from the back of the tooth, gradually spreading until the point is reached, which makes a swage that backs up the cutting edge of the tooth, thereby making a stronger and more lasting tooth. It is claimed that the life of a saw swaged by the Covell method is increased 300 per cent., because so little has to be ground from it to sharpen the tooth, and the backing of the tooth strengthens it.

By the Covell method of swaging the teeth are not case-hardened, nor are they split.

After the tooth is swaged the operator sets his shaper so that the point of the tooth of the saw is between the beveled portion of the dies to give the proper width of shape to the tooth.

The shaper is operated by an eccentric and a double-thread screw, which can be adjusted by the operator. The shaping is being done while a tooth is being swaged and the dies are released so that the saw can be moved along for the next tooth.

The machine is set up back of the saw

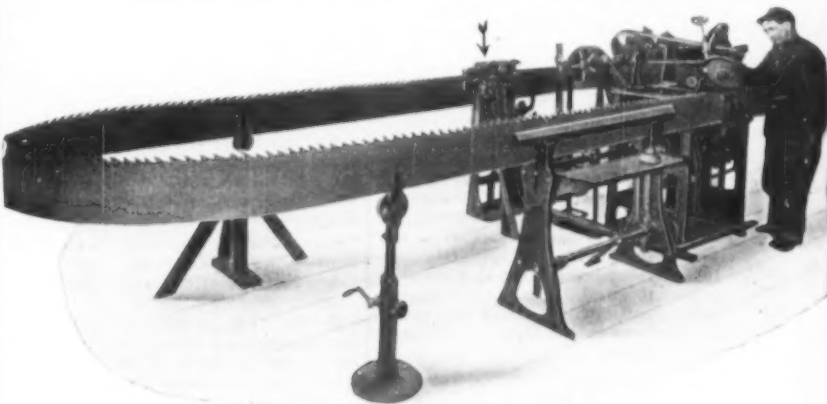
sharpener on a line with the saw, and belted from a shaft below the floor, or the machine can be set up in a line with the saw sharpener, having a short distance between them.

The speed of the machine is the same as the sharpener, which allows them to be operated together.

As soon as the swaged and shaped tooth reaches the sharpener the sharpener is started and the saw is being swaged, shaped and sharpened at the same time.

With this machine doing the swaging

and shaping automatically it allows the sharpening to be done at the same time, which is claimed to increase the output of



COVELL AUTOMATIC SAW SWAGE AND SHAPER.

and shaping automatically it allows the sharpening to be done at the same time, which is claimed to increase the output of



THE COVELL MACHINE.

the filing-room 100 per cent, and decrease the cost of operating 100 per cent.

This machine weighs 180 pounds. It is manufactured by the Covell Saw Swage & Manufacturing Co. of Birmingham, Ala.

Bricks for Building.

To further a greater use of building brick and to promote the interests of the building-brick industry generally are the objects of the Building Brick Association of America, organized originally on February 4, 1909, as the Clay Products Association of America, and taking its present name at Pittsburg on February 10, 1910. It proposes to conduct a vigorous, carefully-planned campaign for the presentation of a series of brief and convincing arguments based upon actual facts and figures, as far as the same are obtainable, as to the value and advantages of bricks in construction of houses. The association holds that wooden buildings are largely responsible for the enormous fire losses annually in America, and that they require

Brick for Four Thousand Dollars," "A Brick Cottage for Two Thousand Dollars" and "A House of Brick for the Working-man." In a preliminary pamphlet the association says that the great work of educating the public on the lines planned cannot be accomplished in a day or a year, and it adds:

"We cannot undertake all of the different problems at once. We can proceed only as fast as funds are available, but there is real life and vigor back of this movement, and we propose to patiently and persistently pursue this campaign until the truth shall be brought home to all those who desire to know it."

The association will include in its membership manufacturers of burned clay building bricks, dealers in them or agents for them, and Mr. J. M. Adams, The Rugery, Columbus, O., is chairman of the membership committee. The officers are: S. C. Martin, Pittsburg, Pa., president; R. L. Queisser, Cleveland, O., vice-president, and Parker Fiske, 1614 Flat Iron Building, New York, secretary and treasurer, and the directors are F. W. Butterworth, Western Brick Co., Danville, Ill.; L. C. Kilbourne, Columbus Brick & Terra-Cotta Co., Columbus, O.; S. C. Martin, Kittanning Brick & Fire Clay Co., Pittsburg, Pa.; T. C. Moulding, Thomas Moulding Co., Chicago, Ill.; John W. Sibley, Sibley, Menge Press Brick Co., Birmingham, Ala.; W. Stewart Smit, Twin City Brick Co., St. Paul, Minn.; R. E. Sunderland, Sunderland Brothers Company, Omaha, Neb.; E. J. Burke, New York Press Brick Co., Rochester, N. Y.; R. G. Eisenhart, Horseheads Brick Co., Horseheads, N. Y.; E. A. Fisher, Sayre & Fisher Company, Sayreville, N. J.; William Hanley, Bradford Press Brick Co., Bradford, Pa.; Arthur D. Rogers, Rogers & Manson, Boston, Mass.; Ralph Simpkins, Hydraulic Press Brick Co., St. Louis, Mo.; C. B. Vernoy, Illinois Brick Co., Chicago, Ill.; J. M. Adams, Iron Clay Brick Co., Columbus, O.; J. Howard Chambers, Chambers Brothers Company, Philadelphia, Pa.; Parker Fiske, Fiske & Co., Inc., New York, N. Y.; S. M. Gould, Ohio Mining & Manufacturing Co., Shawnee, O.; Charles J. Henderson, Harbison-Walker Refractories Co., New York, N. Y.; R. L. Queisser, Queisser-Bliss Company, Cleveland, O., and W. J. Snyder, Brazil Clay Co., Brazil, Ind.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

The Daily Bulletin of the Manufacturers' Record is published every business day in the year for the purpose of giving the earliest possible news in regard to new industrial, railroad and financial enterprises organized in the South. It is invaluable to contractors, manufacturers, engineers and all others who want to get in touch at the earliest moment with new undertakings or the enlargement of established enterprises. The subscription price is \$25 a year. All advertising contracts in the Manufacturers' Record extending over a period of three months include a subscription for the length of time of the contract to the Daily Bulletin.

BRIDGES, CULVERTS, VIADUCTS

Ga., Atlanta.—Louisville & Nashville Railroad, W. H. Courtenay, chief engineer, Louisville, Ky.; Atlanta & West Point Railroad, C. A. Wickersham, general manager, Atlanta, and Georgia Railroad, Thomas K. Scott, general manager, Augusta, Ga., will construct viaduct along entire length of south side of freight depot, so as to be on level with third floor of structure; roadway is to be 800 feet long and 35 feet wide; cost \$50,000.

N. C., Winston-Salem.—Forsyth County Commissioners decided to construct steel bridge across Yadkin River. (See "Road and Street Improvements.")

Okla., Ardmore.—Arluckle & Western Railroad Co., Oscar O. Ayers, president, will construct 17 bridges, each 100 feet long.

Okla., Muskogee.—Muskogee County Commissioners awarded contract to Vincennes Bridge Co., Vincennes, Ind., for construction of 100-foot span across Durdeen Creek and 90-foot span over Pecan Creek, costing, respectively, \$4750 and \$2350; to H. B. Nelson & Co., Muskogee, for construction of 120-foot span across Coody Creek and for concrete bridge over slow near Arkansas River, costing \$3489 and \$1910, respectively. (Recently mentioned.)

S. C., Greenville.—Bids will be opened April 15 for construction of two bridges over Reedy

River; J. P. Goodwin, Supervisor. (See "Machinery Wanted.")

Tenn., Elizabethton.—City awarded contract at \$7500 to Converse Bridge Co., Chattanooga, Tenn., to construct 30-foot steel bridge across Tow River.

Tex., Austin.—City awarded contract at \$2345 to Ray McDonald of Austin to repair, strengthen and extend culvert on South Congress Ave. at Bouldin Creek.

Tex., Fort Worth.—City Commission is considering plans prepared by L. S. Leversedge, John B. Hawley and City Engineer Trammell for bridge across Trinity River, connecting Fort Worth proper with North Fort Worth.

Tex., Gainesville.—Gainesville, Oklahoma & Western Railroad Co., J. C. Whaley, president, will construct four steel bridges across Clear Creek, Elm Creek, Denton Creek and Red River. (See "Machinery Wanted.")

Tex., San Benito.—San Benito & Rio Grande Railroad, A. M. Gibson, chief engineer, San Benito, will construct pile and trestle bridges.

W. Va., Elkins.—Randolph county will construct bridge across Cheat River; bids to be opened May 6; F. A. Rowan, clerk of court. (See "Machinery Wanted.")

CANNING AND PACKING PLANTS

Ga., Waycross.—Georgia-Florida Farm Home Land Development Co. will establish cannery. (See "Land Development.")

Miss., Biloxi.—Biloxi Canning Co. will establish shrimp shipping plant; plans call for peeling and canning shrimp; daily capacity 100 barrels.

S. C., Charleston.—Southern Pickle Co. incorporated with \$5000 capital stock; Wallace Hutchinson, president; Wilson G. Harvey, secretary-treasurer.

Va., Alexandria.—Armour & Co., Chicago, Ill., awarded contract to Joseph Rodgers and Julian D. Knight, Alexandria, for erection of plant at Cameron and Henry Sts.

CLAYWORKING PLANTS

La., Hammond.—Cement Brick—G. E. Thompson, Box 24, will establish initial plant on farm to manufacture cement brick; hand machine ordered; contemplates installing block machines later.

Tex., Belton.—Gulf, Colorado & Santa Fe Railway Co., F. Merritt, chief engineer, Galveston, Tex., will construct wooden bridge across Main St. crossing; will have 28-foot roadway with sidewalks 4 feet wide; construction by company forces. (Recently noted.)

Tex., Dallas.—Dallas County Commissioners and Dallas Interurban Street Railway Co. are considering construction of bridge, 60 feet wide, across Trinity River at Commerce St.; J. F. Witt, County Engineer.

Tex., Galveston.—Galveston county will construct wooden bridge over Sydnor's Bayou, Galveston Island; bids to be opened April 12; John M. Murch, County Auditor. (See "Machinery Wanted.")

Tex., Palmer.—Bricks.—Company organized with \$3000 capital stock; Luke Harrison, president; F. J. Wilson, vice-president; J. R. Beck, secretary; will establish brick plant.

W. Va., Clarksburg.—West Virginia & Pittsburgh Division, Baltimore & Ohio Railroad, A. W. Kinsman, chief engineer, B. & O. Bldg., Baltimore, Md., will construct five bridges.

W. Va., Wheeling.—Clay Products, etc.—Riverside Sanitary Manufacturing Co. incorporated with \$250,000 capital stock by John P. Arbenz, A. G. Hubbard, W. W. Simpson and others.

COAL MINES AND COKE OVENS

Ky., Harlan County.—M. J. Moss and White L. Moss, Pineville, Ky., have purchased and leased 1500 acres of coal land in Harlan county; will construct mining plant some time in May. Address White L. Moss.

Ky., Paintsville.—Red House Coal Co., recently reported incorporated with \$100,000 capital stock, will be leasing and holding company; J. C. C. Mayo, president; James W. Turner, vice-president; R. A. Patrick, secretary; J. E. Buckingham, treasurer.

Ky., Whitehouse.—Fluhart Collieries Co., recently noted organized to install plant, will develop 2500 acres of coal land; daily output, 3000 tons; Theo. Fluhart, president; H. V. Wells, vice-president; T. L. Fluhart, secre-

tary; J. W. Chandley, treasurer. Address W. S. McCloud, manager.

Md., Frostburg.—Maryland Coal & Iron Co. incorporated with \$50,000 capital stock by W. H. Morgan of Frostburg, A. Taylor Smith, Cumberland, Pa.; H. B. Avery, Troy, Pa.; O. J. Furman, Elmira, N. Y.; operates mines at Barreille and Short Gap, Md., and contemplates improvements, to be under supervision of W. H. Morgan.

Md., Westernport.—M. J. Fabey & Sons are arranging for development of coal land.

Tex., Weatherford.—Santo Mining & Developing Co. (recently reported incorporated) will develop 6000 acres; daily output, 60 tons coal; J. C. James, president; H. L. Moseley, vice-president; Lee Nelson, secretary; H. L. Brevard, treasurer.

W. Va., Berwind.—J. A. Huddleston and others of Berwind-White Coal Mining Co., Betz Bldg., Philadelphia, Pa., will build coal-mining plant on Dry Fork branch, north of Berwind.

W. Va., Charleston.—Indian Run Coal Co. incorporated with \$25,000 capital stock by P. G. Edmunds of Charleston, R. W. Edmunds, W. E. Wright, F. M. Wright, all of Huntington, W. Va., and E. B. Maguire, Toledo, O.

W. Va., Charleston.—Coal Valley Land Co. incorporated by J. F. Clark of Charleston and F. W. Ogden, Scranton, Pa., and others.

W. Va., Sprigg.—Great Bend Coal Co. incorporated with \$50,000 capital stock by J. A. Williams, Matewan, W. Va.; Wells Goodykoontz, Viola K. Stauffer, both of Williamson, W. Va., and others.

W. Va., Thacker Mines.—Thacker Coal & Coke Co., James Collins, general superintendent, will expend \$100,000 on developments recently noted; opening four new mines; production to be brought on to one tippie by retarder conveyors; machinery includes two 200-kilowatt generators, direct connected to engines, and six 150-horse-power boilers; five loading tracks will be made at tippie, including boxcar loading track; tippie and retarder designed and built by Link-Belt Co., Philadelphia, Pa.; electric mining machinery; daily output, 3000 tons.

W. Va., Williamson.—Superior Thacker Coal Co. incorporated with \$50,000 capital stock by Marion C. Randolph, Effie V. Randolph, William L. Poole, Robert S. Poole, all of Williamson, and Harry H. Randolph, McComas, W. Va.

COTTON COMPRESSES AND GINS

Ark., Clarksville.—Citizens' Gin & Ice Co. incorporated by S. J. Mays and others. (See "Ice and Cold-Storage Plants.")

Ark., Yarbrow.—Yarbrow Gin Co. incorporated with \$6000 capital stock by Cullen B. Green; B. L. Russ, A. M. Winter, J. H. Huffman and A. Huffman.

Ga., Dublin.—Southern Cotton Oil Co., 24 Broad St., New York, will expend \$30,000 to erect 16-stand ginnery; brick or concrete; construction by company's force; 150 bales daily capacity. (Recently noted.)

N. C., Raleigh.—William A. Simpkins purchased building; will treble size and convert into cotton gin and warehouse with capacity of 250,000 bushels of seed.

Okla., Blanchard.—Blanchard Grain & Gin Co. incorporated with \$25,000 capital stock by D. L. Lash, S. P. Render, William Morgan, Jr., and others.

Okla., Teriton.—Teriton Gin Co. incorporated with \$10,000 capital stock by E. J. Miller of Perry, Okla.; Victor E. Miller of Teriton, George L. Echard and James W. DuPres of Oklahoma City, Okla.

S. C., Aiken.—W. H. Hite will establish 70-saw system gin and grist mill; will erect galvanized-iron building; leased Wise water-power site and will utilize same.

Tex., Terrell.—Hubble, Slack & Co. will rebuild round-bale gin recently reported burned.

Tex., Terrell.—American Round Bale Press Co., 49 Wall St., New York, will rebuild cotton gin recently noted burned; 100x21 feet; ordinary construction; cost \$3000.

COTTONSEED-OIL MILLS

Ga., Dublin.—Laurens Cotton Oil Co., previously reported incorporated with \$60,000, J. E. Smith, president, awarded contract for portion of plant; contract for main building not yet awarded.

N. C., Fairmont.—Union Ginning Co. is name of company recently noted to establish

oil mill; H. G. Stubbs, president; H. F. Purris, secretary-treasurer; capital stock \$25,000; will erect building; plans not determined; 15 or 20 tons daily capacity.

S. C., Edgeland.—Beaver Dam Mills, recently noted to increase capacity of oil mill one-third, has purchased machinery, including four linters and two hydraulic gin presses.

S. C., St. George.—St. George Cottonseed Oil Mill & Manufacturing Co. will install new machinery, including additional gin system.

Tex., Forney.—Forney Oil Mill Co. organized by T. J. Pinson and M. L. Moore; will establish 60-ton cottonseed-oil mill. (Previously mentioned.)

DRAINAGE AND IRRIGATION SYSTEMS

Fla., West Palm Beach.—Florida Everglades Land Co. purchased 60,000 acres of land, beginning at end of Okeechobee road, about five miles west of city, and extending to Pompano at south; will construct roads, dykes and ditches west of Boynton and Delray, preparing for immediate colonization; dyke is to extend along east line of Everglades west of property.

La., New Orleans.—New Orleans Drainage Co. incorporated with \$2,500,000 capital stock; Warren B. Reed, president; James B. Pike, secretary-treasurer, and E. D. Jones, vice-president.

La., St. Bernard.—Commissioners of Bayou Terre-aux-Boeufs Drainage District awarded contract to Hopdale Development Co., Hopdale, La., to reclaim several hundred thousand acres of swamp land on both sides of Bayou Terre-aux-Boeufs from Poydras to Kenilworth; work will include construction of two canals, total length of about 40 miles, paralleling bayou, and will be under supervision of D. A. Mundinger, engineer of Drainage Board.

La., St. Bernard.—Badger-Louisiana Land Co. organized by N. A. Baker, New Orleans, La.; J. T. Joyce, W. L. Davis, Marshall Cousins, Charles L. Allen, C. E. Phillips and others, all of Eau Claire, Wis.; will reclaim 28,000 acres of land.

Miss., Greenville.—Supervisors Black Bayou Drainage District contemplate appropriating \$8500 to complete drainage of lands along Black Bayou, in Washington county.

N. C., Moyock.—Moyock Drainage District No. 1, A. B. Lukens, chairman Drainage Commissioners, awarded contract to American Steel Dredge Co., Fort Wayne, Ind., for 733,000 yards dredge work; district comprises 12,000 acres, which will be put in farming condition on completion of canals; experimental farm is also contemplated.

Tex., Eagle Pass.—Eagle Pass Irrigation Co. incorporated with \$6000 capital stock by J. B. Dibrell, Emil Mosheim and Eliza K. Dolch.

Tex., Lobo.—Lobo Land & Irrigation Co., P. O. Box 123, Crockett, Tex., awarded contract to Dimmick Construction Co., Kansas City, Mo., to drill 500 wells for irrigation of 60,000 acres of land in El Paso county, known as Van Horn Valley; property is to be divided into 20-acre tracts and well sunk on each tract; contract price is regulated by depth of wells; estimated total cost, \$300,000; company owns townsite of Lobo, and is proceeding with various improvements, including macadamizing of streets at cost of about \$50,000, erection of \$25,000 hotel, for which H. A. Beasley, Crockett, Tex., has contract, etc. J. E. Mitchell, Crockett, Tex., is engineer in charge. (Recently mentioned.)

ELECTRIC-LIGHT AND POWER PLANTS

Ala., Opelika.—City voted issuance of \$85,000 of bonds for construction of electric-light plant and water-works. Address The Mayor. (Recently mentioned.)

Ga., Union City.—City will vote April 9 on \$20,000 bond issue for electric light and other improvements; D. A. Carmical, Mayor. (See "Schools.")

La., Kinder.—Kinder Ice, Light & Water Co. incorporated with \$25,000 capital stock; Paul O. Moss, president; John R. Lyles, vice-president, and H. A. Keys, secretary-treasurer.

La., New Orleans.—New Orleans Railway & Light Co. awarded contract to Muir & Fromberg, 803 Tulane-Newcomb Bldg., New Orleans, for erection of substation recently

noted; 82 feet 4 inches by 53 feet 4 inches by 49 feet 6 inches; fireproof construction; cost \$27,000; plans by company.

Miss., Mississippi River Power Co. Incorporated with \$3,000,000 capital stock by J. J. Loughlin, Brooklyn, N. Y.; J. F. Carroll, New York, and H. W. Davis, Wilmington, Del.

Mo., Columbia.—Prof. H. B. Shaw, dean of Engineering School of University of Missouri, and H. H. Humphrey, St. Louis, Mo., submitted report to City Council recommending extension of electric-light plant and water-works at cost of \$125,000.

N. C., Fort Caswell.—H. P. O'Hagan, superintendent of construction at quartermaster's department, prepared plans for power plant; bids invited. (See "Government and State Buildings.")

N. C., River Falls.—River Falls Cotton Mill Co., J. W. Menefee, president, Graham, N. C., awarded contract to Hydraulic Properties Co., 60 Broadway, New York, for engineering of water-power-electrical plant, as lately reported; includes reinforced hollow concrete dam of Ransom type, power-house, installation of three 600-kilowatt alternators (60-cycle, three-phase) connected direct to three 900-horse-power water-wheels, and transmission lines to Graham and Burlington. (See "Textile Mills.")

Okla., Boley.—Boley Light & Power Co. incorporated with \$5000 capital stock by D. J. Turner, T. M. Haynes, W. H. Sims and others.

S. C., Blacksburg.—City is completing arrangements for construction of proposed electric-light plant; has \$15,000 available for electric lighting, street paving, etc. Address The Mayor.

S. C., Summerville.—Summerville Ice, Light & Power Co. incorporated with \$25,000 capital stock; John H. Heinsohn, president and treasurer; Julius D. Koster, secretary.

S. C., Seneca.—Seneca Light & Power Co. incorporated with \$50,000 capital stock by G. W. Gignilliat, L. A. Edwards, Campbell Courtney and W. A. Strother.

Tenn., Erwin.—Nolachucky Power Co., K. S. Finch, president, Charlotte, N. C., is preparing to begin construction of dam across Nolachucky River one mile from Erwin; dam is to be of reinforced concrete, 400 feet long, 30 feet high and 30 feet thick at base and 15 feet at top; will develop about 3500 horse-power.

Tenn., Decher.—City awarded contract to T. B. Bowser, Huntsville, Ala., to install electric-light plant.

Tenn., Lafayette.—City is considering issuance of \$40,000 of bonds for construction of electric-light plant and water-works. Address The Mayor.

Tenn., McMinnville.—Faulkner Light & Power Co. incorporated by Clay Faulkner, H. C. Faulkner, M. T. Bass, C. J. Bryan and John L. Willis to develop water-power of Collins River; will construct dam across river and transmit electricity to McMinnville, Faulkner and other towns.

Tex., Austin.—Dumont-Holmes Steel Concrete Co., Chicago, Ill., submitted plans to city for construction of reinforced concrete dam across Colorado River at location of former dam; power plant (consisting of generators, pumps, etc.) and 6,000,000-gallon reservoir are to be located at point west of dam, about 315 feet above low water; remaining portion of old dam will constitute part of west end of new structure, and is to be supplemented by reinforced concrete addition, making it 11 feet higher than old dam, and by curtain walls on upstream face 2 feet thick and extending 30 feet below water; the wall on downstream face of dam, both old and new parts, will also have continuous curtain wall as additional preventive of leakage and overflow; entire dam is placed upon and anchored to unexcavated rock ledge; reinforced concrete buttress walls are to be from 7 to 10 feet apart; upface of which is to slope at angle of 45 degrees; sluiceway dam is to have reinforced concrete bulkhead from top of new structure down to first floor above water level, under which floor are to be sluiceways designed to take care of flood waters of river, which will be closed by moveable gates operated by hydraulic machinery from inside of dam; power-house dam is to be similar to sluiceway dam, except that solid floors are to be placed to support machinery; entire dam is to be 1095 feet long and 65 feet above low water; with average flow of river will develop 3000-horse-power; mechanical equipment will include three 1000-horsepower turbines, two 500-horse-power turbines, two pumps, each of 6,000,000-gallon capacity daily, and electrical generators capable of developing 3750-horse-power. (Recently mentioned.)

Tex., Hondo.—A. G. Hondo will construct

electric-light plant; will install gas producer and gas engine, automatic steam engine and electric generator.

Tex., Midland.—Midland Light & Power Co. will install additional equipment costing \$15,000 in electric-light plant.

Tex., Honey Grove.—J. Dannenbauer will construct electric-light plant; will install 100-kilowatt generating unit.

Va., Richmond.—Bids will be opened April 26 for furnishing and erecting poles, lamp fixtures, wire, transformers, etc.; E. D. Richardson, chairman committee on electricity; E. W. Trafford, Chamber of Commerce Bldg., is consulting engineer. (See "Machinery Wanted.")

FERTILIZER FACTORIES

Fla., Tampa.—Stewart, Moorhead & Co., Savannah, Ga., contemplate establishment of fertilizer plant.

Ga., Dublin.—Consolidated Phosphate Co. awarded contract for erection of proposed fertilizer factory; five stories; 102x400 feet; annual capacity, 30,000 tons of phosphate; cost \$75,000; Lizzie Bashinski is promoter.

S. C., Bennettsville.—Mariboro Fertilizer Co. incorporated with \$25,000 capital stock, will erect building and install machinery; John L. McLaurin, president; Jas. A. Drake, vice-president; J. F. Everett, secretary-treasurer. (See "Machinery Wanted.")

Va., Richmond.—Standard Nitrogen Co. incorporated with \$100,000 capital stock; Geo. F. Heyl, president; F. N. Hemphill, secretary-treasurer, both of 145 Broadway, New York.

FLOUR, FEED AND MEAL MILLS

Mo., St. Charles.—St. Charles Milling Co. incorporated with \$30,000 capital stock by John H. Werner, Robert Mollenkamp, Herman Wilbrand and others.

Okla., Frederick.—Consolidated Alfalfa Milling Co., Oklahoma City, Okla., awarded contract to Skirvin Construction & Equipment Co. for erection of alfalfa mill; 40x126 feet; one story; frame; roof covered with corrugated iron; concrete foundation; will install boilers, engine and milling machinery; cost of plant, \$20,000; plans by F. D. Hyde, Oklahoma City. (Previously noted at Oklahoma City, Okla.)

S. C., Aiken.—W. H. Hite will establish grist mill. (See "Cotton Compresses and Gins.")

Tenn., Fayetteville.—Fayetteville Milling Co. incorporated with \$15,000 capital stock by J. E. Huffman, E. C. Huffman, A. B. McGill and others.

Tex., Denison.—Denison Mill & Grain Co. incorporated with \$60,000 capital stock by J. B. McDougall, C. M. King and W. L. Hutcheson.

Tex., Ennis.—Ennis Mill & Feed Co. (R. L. Sparkman) will open bids in about 60 days for rebuilding plant recently reported burned; 300 bushels per hour capacity. (See "Machinery Wanted.")

FOUNDRY AND MACHINE PLANTS

Ala., Anniston.—Foundry.—Anniston Foundry & Machine Co. awarded contract at \$9000 to Powell & Wolsoncroft, Anniston, for erection of machine shop, pattern shop, storage room and main foundry 330x120 feet; concrete foundation; frame superstructure with concrete high enough to eliminate danger of fire; R. O. Watson, Anniston, is contractor for grading.

Ala., Bessemer.—Machine Shop.—Republic Iron & Steel Co., general offices Frick Bldg., Annex, Pittsburgh, Pa., awarded contract to McPoland & O'Garra, Bessemer, for erection of machine shop at Raimund mines; cost \$19,000.

Ark., Rogers.—Foundry.—S. B. Todd and J. P. Brown are interested in establishment of foundry and machine shop.

Md., Baltimore.—Foundry.—Levering Bros., 104-130 Hughes St., awarded contract to Chesapeake Iron Works, Bayard and Severn Sts., Baltimore, for erection of foundry; one story; fireproof; 75x90 feet; principally steel construction; plans by R. C. Sandlass, 23 North Fulton Ave., Baltimore. (Recently mentioned.)

Miss., Hattiesburg.—Foundry.—Enterprise Foundry & Machine Plant incorporated with \$30,000 capital stock by G. A. Parsons, W. B. Dickerson, W. A. Bennett and others.

Mo., Kansas City.—Brass.—Prier Brass Manufacturing Co. increased capital stock from \$40,000 to \$60,000.

Mo., St. Louis.—Cars.—St. Louis Car Co. will increase capacity of plant.

Tex., Austin.—Tips Foundry & Machine Co. will erect brick foundry to replace structure previously burned at loss of \$125,000.

Tex., Fort Worth.—Iron Works.—Van Zandt-Moore Iron Works Co. incorporated with \$15,000 capital stock by L. H. Van Zandt, J. F. Moore and I. L. Van Zandt, Jr.

Tex., Schulenberg.—Foundry.—Charles J. Stansel will establish iron and brass foundry and machine shop.

Tex., San Antonio.—Ice Machines.—Modern Ice Machine Co., H. Zork, secretary-treasurer, Frost Bldg., is perfecting plans for establishment of ice-machine plant; will secure building and equip for manufacturing compact ice machines suitable to be installed in corner of storeroom or basement and requiring only small horse-power to manufacture from 50 pounds to 5 tons of ice daily, using gas instead of ammonia.

GAS AND OIL DEVELOPMENTS

Ark., Siloam Springs.—Company organized with \$125,000 capital stock; Connelly Harrington, president; Bert R. Farmer, secretary; L. J. Reese, vice-president; R. S. Morris, treasurer; will develop oil properties near Siloam Springs.

Ga., Atlanta.—Cass County Oil Co. incorporated with \$200,000 capital stock by F. M. Greene, L. W. Willis, John C. Hutchison and others.

Ky., Diamond Springs.—Consolidated Oil & Gas Co. incorporated with \$250,000 capital stock; S. J. Gish, president and general manager; E. M. Gish, first vice-president, both of Central City, Ky.; O. A. Bland, second vice-president, Louisville, Ky.; D. B. Lata, Jr., secretary-treasurer, Central City; consolidation of Diamond Springs Oil & Gas Co., Dunmore Light & Heating Co., Louisville, Ky. and Logan County Gas Co.; will continue operations in Logan county.

Mo., St. Louis.—Estelle Oil Co. incorporated with \$250,000 capital stock by Arthur A. Leschen, George F. Ernst and Frank A. Mohr.

Okla., Bartlesville.—American Well & Prospecting Co. incorporated with \$150,000 capital stock by E. L. Akin of Bartlesville, H. G. Johnston of Corsicana, Tex., and Charles Rittersbacher of Los Angeles, Cal.

Okla., Hominy.—Hominy Gas Co. organized with \$100,000 capital stock; Charles Walling, president; Pat Harris and Alf Brown, vice-presidents; Charles Peters, secretary; H. M. Maher, treasurer.

Okla., Madill.—Kansas City Oil & Gas Co. incorporated with \$60,000 capital stock by S. F. Funk of Okmulgee, Okla.; R. P. McGeehan and J. R. Cunningham of Kansas City, Mo.

Okla., Muskogee.—Grand Valley Oil & Gas Co. incorporated with \$10,000 capital stock by Frank H. Burek, Frank Pauls, F. C. Warren and John F. Champion.

Okla., Sapulpa.—Big Joe Oil & Gas Co. incorporated with \$10,000 capital stock by Joseph Bruner, Maggie E. Bruner, both of Sapulpa, and Arthur B. Rees of Tulsa, Okla.

Okla., Tulsa.—Tulsa Heights Oil & Gas Co. incorporated with \$11,000 capital stock by C. W. Deming, D. C. Acosta, both of Tulsa, and J. R. Hill of Memphis, Tenn.

Okla., Tulsa.—Tad Oil Co. incorporated with \$5000 capital stock by A. B. Reese, T. D. Lyons and Sophia Magnuson.

Okla., Tulsa.—Oklahoma Producers' Co-operative Oil and Gas Syndicate incorporated with \$100,000 capital stock by Archibald Campbell, John S. McCarthy and Hastings Malcolm.

S. C., Charleston.—Texas Company, Houston, Tex., is arranging for erection of proposed plant on Cooper River; preliminary work under way for erection of tanks; will ship oil for refining to this city in barges.

S. C., Georgetown.—Gulf Refining Co., Pittsburgh, Pa., will establish oil plant; will erect two 15,000-gallon storage tanks, galvanized iron warehouse and other buildings.

Okla., Tulsa.—Battery Oil & Gas Co. incorporated with \$25,000 capital stock by G. H. Jordan, W. J. Thompson and H. M. Wampler.

W. Va., Parkersburg.—Jason Oil & Gas Co. incorporated with \$5000 capital stock by John T. Harris, E. D. Baumgarner, H. B. Dupue and others.

W. Va., Weston.—Manhattan Oil & Gas Co. incorporated with \$10,000 capital stock by Alex. Blumberg, William Adler, Edward Brannon and others.

ICE AND COLD-STORAGE PLANTS

Ark., Clarksville.—Citizens' Gin & Ice Co. incorporated with \$5000 capital stock by S. J. Mays, Finis Blackburn and George O. Patterson.

La., Kinder.—Kinder Ice, Light & Water Co. incorporated with \$25,000 capital stock;

Paul O. Moss, president; John R. Lyles, vice-president; H. A. Keys, secretary-treasurer.

Md., Ellicott City.—Maryland Ice & Manufacturing Co. organized by W. W. Parker, 23 Central Savings Bank Bldg., Baltimore, Md.; August C. Klen, Ellicott City, and others.

Okla., Hobart.—T. D. Turner & Co. will install cold-storage plant.

Okla., Carmen.—Crystal Ice Co. incorporated with \$10,000 capital stock by F. N. Winslow, W. D. Winslow and C. J. Campbell.

Okla., Muskogee.—Armour & Co., Chicago, Ill., reported to purchase site and erect cold-storage plant.

Okla., Oklahoma City.—Standard Ice Co. incorporated with \$25,000 capital stock by G. H. Jordan, W. J. Thompson and H. M. Wampler.

S. C., Summerville.—Summerville Ice, Light & Power Co. incorporated with \$25,000 capital stock; John H. Heinsohn, president and treasurer; Julius D. Koster, secretary.

Tenn., Lawrenceburg.—Pure Ice Co., incorporated with \$5000 capital stock, has elected W. C. Parkes, president; E. Nixon, vice-president; John Shade, Jr., secretary-treasurer; will manufacture ice; machinery purchased.

Tex., De Leon.—W. C. Streety and W. E. Lowe purchased machinery and will establish 20-ton ice plant; cost \$15,000.

Tex., Nacogdoches.—Nacogdoches Ice Co., C. W. Dawley, president, has engaged J. D. Mayhew, Tyler, Tex., as engineer in charge of reconstruction of burned plant recently noted; brick; ordinary construction.

Tex., Runge.—V. E. Kuhne is manager of company to erect ice and cold-storage plant in connection with creamery; cost \$11,000; Alex. Harrison in charge of construction. (See "Miscellaneous Manufacturing Plants.")

LAND DEVELOPMENTS

Ala., Bolling.—John Allyn Campbell, Chicago, Ill.; F. S. Martin, Minneapolis, Minn., and Clyde W. Preston, Jamestown, N. Y., purchased town of Bolling and surrounding land, comprising 27,000 acres, for colonization; tract includes 15,000 acres of timberland and promoters will establish sawmill.

Ala., Birmingham.—Bessemer Homestead Co. incorporated with \$10,000 capital stock; S. E. Thompson, president, Birmingham; William Edwards, vice-president, Meridian, Miss.; J. H. Taylor, secretary-treasurer, Birmingham.

Ala., Gadsden.—Gadsden Land & Development Co., B. T. Head, president, will continue development of 230 acres as residential section; to be known as Plant City; capital stock \$100,000; Hill & Campbell, engineers in charge.

Ala., Grand Bay.—Grand Bay Orchard Co. incorporated with \$32,000 capital stock by Harper S. Hoover, C. C. Marson, M. P. Barker and others.

Ark., Helena.—Phillips County Land Co. incorporated with \$10,000 capital stock by H. P. Morris, E. C. Morris, H. R. Lucas and others.

Ark., Paragould.—McDonald Land Co. incorporated with \$10,000 capital stock; W. J. McDonald, president; John McDonald, vice-president; Bill McDonald, secretary-treasurer.

Fla., St. Petersburg.—Celery and Grapefruit Cultivation.—St. Petersburg Celery & Grapefruit Co. incorporated with \$11,000 capital stock; Lew B. Brown, president; W. O. Rouse, vice-president; C. E. Chambers, secretary; L. C. Hefner, treasurer.

Fla., Tallahassee.—Florida Home Development Co., John H. Bell, president, recently reported incorporated with \$10,000 capital stock, has purchased land in Leon county and will sub-divide into five-acre tracts each for development of pecan industry. (See "Machinery Wanted.")

Ga., Atlanta.—Habersham Orchard & Improvement Co. incorporated with \$60,000 capital stock by N. T. Pool, D'Anson Isely, P. A. Quillain, all of Atlanta, and J. W. Pritchell of Nashville, Tenn.

Ga., Atlanta.—Mrs. M. R. Benning purchased 10 acres of land on Highland Ave. for \$16,500, which, with seven acres adjoining, owned by T. J. Cheshire, will be developed as residential section; will extend Moreland Ave. to Kimballville farm and make other improvements; cost \$20,000.

Ga., Atlanta.—Atlanta Development Co. organized with \$500,000 capital stock; M. L. Thrower, president; A. P. Stewart, vice-president; S. B. Naff, treasurer; Robert H. Jones, Jr.

Ga., Cobb.—Ebaugh Land Co., D. W. Ebaugh, president, main office, Greenville, S. C., recently reported incorporated with \$100,000 capital stock, will develop farming district, sub-dividing land into farms of 100

to 200 acres each. (Noted under S. C., Greenville.)

Ga., Savannah.—Washington Park Co. incorporated with \$500 capital stock by Carl Mendel, C. H. Konemann and Fred Westels, Jr.

Ga., Waycross.—Georgia-Florida Farm Home Development Co. organized with A. R. Levy, president, Chicago, Ill.; W. D. Morton, secretary, Waycross; will develop 32,000 acres of land in Wayne, Pierce and Charlton counties; divide into small tracts for colonies, etc.; will establish cannery.

La., New Orleans.—Alexander Lichtentag, 134 Camp St., purchased Jack Israel tract, containing approximately 200 acres, for \$50,000; will drain, probably divide into building sites and make other improvements.

La., New Orleans.—Panama Realty Co. incorporated with \$35,000 capital stock by Samuel H. Stern, M. D. Dimitry and Jules A. Grasser.

Md., Baltimore.—New Pittsburg Land Co. incorporated with \$4000 capital stock by R. Lee Slingluff of The Cecil, Walter C. Piper and Norwell P. Chapman.

Mo., Monroe City.—Monroe City Improvement Co. incorporated with \$11,000 capital stock by Belle Johnson, George L. Turner and Joseph S. Rutledge.

Mo., St. Joseph.—Missouri-Florida Land & Investment Co. incorporated with \$50,000 capital stock by H. L. Bowen, Thomas B. Allen and George L. Zwick.

Mo., St. Louis.—American Agricultural Co., 900 SaSalle Bldg., incorporated with \$5000 capital stock; Andrew G. Schramm, president; Willis L. Marsh, treasurer; will continue farming operations, growing alfalfa, grain and staple vegetables and raising hogs. (See "Machinery Wanted.")

Okla., Shawnee.—West End Land Co. incorporated with \$850,000 capital stock by Martin C. Fleming, J. H. Wahl, U. S. Hart and others.

S. C., Blenheim.—Blenheim Improvement Co. incorporated with \$5000 capital stock; G. D. Mapleson, president; J. B. Ayers, secretary-treasurer.

S. C., Charleston.—Rutledge Avenue Improvement Co. incorporated with \$20,000 capital stock; B. Schachte, president and treasurer; Harry Schachte, vice-president; G. Sottile, secretary.

S. C., Columbia.—Amusement Park.—Ridge-wood Amusement Co., John D. Frost, president, reorganized with \$30,000 capital stock to establish amusement park and lake at Ridgewood; will complete dam across Crane Creek, erect three-story pavilion, 60x140 feet; install flood gates, amusement devices, etc.

S. C., Columbia.—L. J. Frink and Hunter A. Gibbs purchased eight acres of land on Elmwood Ave., and will subdivide into about 140 lots of 50x125 feet each, cut street through, erect 12 dwellings and make other improvements.

Tenn., Memphis.—Country Club Place Incorporated with \$155,000 capital stock by W. H. Reid, D. H. Crump, E. R. Farham and others; will develop subdivision in south-eastern part of city.

Tenn., Nashville.—Henry Sperry purchased Cantrell tract, containing 50 acres, for \$32,000; land has been subdivided into half-acre lots; will lay out streets and sidewalks and make other improvements; development to be known as West End Heights.

Tenn., Trenton.—Pecan Cultivation.—Tennessee Pecan Co. incorporated with \$50,000 capital stock by H. G. Baker, Masterson Peyton and others.

Tex., Austin.—Colorado Townsite Co. incorporated with \$7500 capital stock by Chas. Rogan, T. H. Williams, H. A. Wroe and W. A. Harper.

Tex., Dalhart.—Western Star Realty Co. incorporated with \$20,000 capital stock by Ed. C. Hyde, C. C. Johnson and Robert E. Woods.

Tex., Temple.—McCulvey Land & Investment Co. purchased 32 acres of land for \$30,000; will subdivide into city lots and develop as residential section.

Va., Franklin Park (not a postoffice).—Franklin Park Corporation is proceeding with improvements; has expended \$20,000 for roadways, sidewalks, etc., and will expend \$30,000 for further improvements; developing residential subdivision; company capitalized at \$100,000; R. W. Beall, vice-president, 1333 G St. N. W., Washington, D. C.

Va., Franklin Park (not a postoffice).—National City Real Estate Co. incorporated with \$125,000 capital stock; J. D. Grady, president, 1333 G St. N. W.; F. M. Beall, first vice-president; J. P. Grady, secretary, all of Washington, D. C.

Va., Norfolk.—Indian River Farm Co. incorporated with \$2000 capital stock; N. C. Burruss, president; F. W. Meyer, vice-president; C. Corpew, secretary-treasurer.

Va., Richmond.—Southern Land & Realty Co. incorporated with \$5000 capital stock; W. F. Guerrant, president; W. H. Jeter, vice-president; R. N. Wildbore, secretary-treasurer.

W. Va., Gerards-town.—W. S. Miller Company incorporated with \$25,000 capital stock by L. P. Miller, Bessie L. Miller, Nannie O. Miller and others; will develop orchards.

LUMBER-MANUFACTURING PLANTS

Ala., Bolling.—John Allyn Campbell, Chicago, Ill.; F. S. Martin, Minneapolis, Minn., and Clyde W. Preston, Jamestown, N. Y., will establish sawmill. (See "Land Development.")

Ala., Fremont.—Buck Creek Lumber Co., recently reported incorporated with \$60,000 capital stock, will operate saw and planing mill with daily capacity of 50,000 feet of pine lumber; W. B. Flowers, president-treasurer; H. F. Reese, vice-president; J. B. Cox, secretary.

Ala., Mobile.—European Lumber & Transit Co. incorporated with \$25,000 capital stock by Tom White, George S. Leatherbury, W. A. Powell and C. H. Campbell.

Ga., Clinch County.—Georgia Lumber & Turpentine Co., Homerville, Ga., purchased timber land in Clinch county for \$35,000; will erect sawmill and turpentine plant.

Ky., Louisville.—Adler Lumber Co. incorporated with \$50,000 capital stock by B. A. Meyer, C. L. Adler and R. S. Hill.

La., Algiers, Station A, New Orleans.—Peter Lawton, 1514 Callopo St., New Orleans, and others are reported as to establish sawmill near Verret Canal.

La., New Orleans.—Delta Lumber Co. incorporated with \$50,000 capital stock by J. A. Hilliard, A. T. R. Gerrans, E. P. Brandao and others.

Md., Baltimore.—Maryland Lumber Co. incorporated with \$11,000 capital stock by J. Hough Cottman, 312 Keyser Bldg.; John S. Gittings, J. William Middendorf and others.

Miss., McComb.—Dickey Lumber Co. incorporated with \$35,000 capital stock by L. Z. Dickey, P. E. Greenlaw, E. E. Johnson and others.

N. C., Raleigh.—Shaw Bros. Lumber Co. incorporated with \$50,000 capital stock by J. T. B. Shaw, D. A. Shaw and Ernest Clapp.

Okla., Muskogee.—Starmer-Yow Lumber Co. incorporated with \$25,000 capital stock by C. E. Starmer, B. F. Yow and Masterson Peyton.

Tenn., McMinn County.—Kimball-Willson Lumber Co., Chattanooga, Tenn., purchased 800 acres of timber land in McMinn county and will establish lumber plant.

Tex., Houston.—Alf Bennett Lumber Co. incorporated with \$30,000 capital stock by Alf Bennett, A. B. Bush, B. M. Joseph and D. L. Dickinson.

Tex., Rockport.—Charles G. Johnson Lumber Co. incorporated with \$50,000 capital stock by Charles G. Johnson, Ed Peets and W. M. Hynes.

W. Va., Belington.—Belington Planing Mill Co. will erect drykiln; 60x20 feet; capacity 70,000 feet of lumber.

W. Va., Kenova.—Kenova Lumber & Supply Co. incorporated with \$50,000 capital stock by W. E. Minter, Williamson, W. Va.; Bernard Mason, Pearisburg, W. Va.; Hoge Mason, Bluefield, W. Va., and others.

MINING

Ala., Birmingham.—Fluorspar and Lead.—Birmingham Fluorspar & Lead Co. incorporated with \$10,000 capital stock; T. H. Beners, president; William Bibby, vice-president and general manager; J. M. Persons, second vice-president; A. C. Garber, treasurer; M. Levy, secretary; will develop fluorspar and lead at Marion, Ky.; offices at Birmingham.

Ala., Oneonta.—Iron.—Oneonta Mining Co., J. H. McDonough, president, will develop 500 acres of red hematite iron ore; daily capacity, 40 tons. (Recently noted.)

Ga., Atlanta.—Marble and Granite.—Crystal Marble & Granite Co. incorporated with \$30,000 capital stock by W. F. Garwood, S. A. Garwood, J. H. Bennett and others.

Ga., Bremen.—Pyrites.—Reid Mountain Mining Co. will install new machinery and more than double capacity of mine.

Md., Baltimore.—Slate.—Pennsylvania Slate Manufacturing Co. incorporated with \$10,000 capital stock by Mark W. Wright, 106 East

Saratoga St.; Samuel S. Yoder and Clayton E. Emig.

Ga., Elberton.—Mica.—Dozier Mining Co., Atlanta, Ga., will probably develop Chapman mica mine in Gaines district near Coldwater Creek.

Mo., St. Louis.—Lead and Zinc.—Shoal Creek Land & Mining Co. incorporated with \$10,000 capital stock by H. McK. Wilson, A. B. Wilgus, A. B. Wilgus, Jr., and others.

N. C., Asheville.—Robert E. Lee Mining Co. incorporated with \$30,000 capital stock by C. D. W. Colby, D. Harris, A. E. Sawyer and others.

Okla., Oklahoma City.—Granite.—Menten Granite Co., 118 West 2d St., recently reported incorporated by W. H. Grandsen and others, will quarry and manufacture red Oklahoma granite.

MISCELLANEOUS CONSTRUCTION WORK

Ala., Mobile.—Wharves.—City awarded contract at \$4951 to Jett Bros. of Mobile to rebuild and repair city dock property; improvements include bulkheads and wharves for distance of 98 feet from St. Anthony St. to city slip, and minor repair work on 100 feet of wharf at mouth of slip.

Mo., Doniphan.—Naylor Drainage District No. 1 will award contract April 21 for construction of main canal of district; A. C. Spiker, civil engineer, Bloomfield, Mo. (See "Machinery Wanted.")

Va., Ocean View.—Pier.—Seaside Amusement Corporation will open bids April 7 for erection of dancing pier; plans by Neff & Thompson of Norfolk, Va.

MISCELLANEOUS ENTERPRISES

Ala., Ensley.—Cemetery.—Oakland Cemetery Co. will expend \$15,000 to \$20,000 for improvements to cemetery.

Ala., Ensley.—Garage.—Morrison Motor Car Co. awarded contract to A. M. Gholson, Ensley, for erection of garage; two stories; brick.

Fla., West Palm Beach.—Garage.—I. W. Burheim, Louisville, Ky., awarded contract to E. Schultz, West Palm Beach, for erection of garage; cement blocks; one story; construction to permit erection of additional story; 60x87 feet; will contain pit; concrete floor.

Ga., Atlanta.—Garage.—Mrs. Bertha M. Swift awarded contract to Alken & Parr, Atlanta, for erection of \$20,000 garage.

Ga., Savannah.—Abattoir.—South Atlantic Packing & Provision Co., W. S. Godley, president, awarded contract to Henry Wagner, Cincinnati, O., for abattoir and stockyards on eight acres of land; abattoir will have capacity of 300 head of stock; concrete construction; stalls in stockyard to have cement floors; will also install 50-ton ice plant; cost of buildings, \$15,000; machinery mainly purchased; also awarded contract for fixtures.

Ga., Waycross.—Crematory.—City contemplates installing garbage crematory; J. W. Strickland, clerk of Council. (See "Machinery Wanted.")

Ky., Frankfort.—Automobiles.—Capital Motor Co. incorporated with \$3000 capital stock by W. L. Williams, Pearl Williams, Joseph Seversance and Margaret Seversance.

Ky., Louisville.—Laundry.—Capital Laundry Co. organized with \$25,000 capital stock; A. Broadus, president; Russell Broadus, vice-president; E. R. Schmitt, general manager; will take over E. R. Schmitt's Capital Steam Laundry.

Ky., Louisville.—Equipment.—Fitch-Lewis Equipment Co. incorporated with \$10,000 capital stock by Harry B. Fitch, Ray A. Lewis and R. E. Scharf.

Ky., Louisville.—Silvering and Beveling.—Louisville Silvering and Beveling Works incorporated with \$80,000 capital stock by Constant Georgie, August Geogel, Henry Ruig and Julius C. Vogt.

Ky., Louisville.—Printing.—Copeland Printing Co. incorporated with \$2500 capital stock by Silas T. Copeland, R. M. Copeland and Joseph R. Copeland.

Md., Baltimore.—Bindery.—Albrecht Company, 200 South Sharp St., will erect four-story building at Sharp and Dover Sts. and equip for bookbinding.

Md., Baltimore.—Automobiles.—D. C. Walker Auto Co., Charles and 20th Sts., incorporated with \$30,000 capital stock by Dixon Walker, Hamilton C. Walker, Edward P. Pendleton and James J. Lindsay.

Md., Baltimore.—Construction.—Belvedere Construction Co. incorporated by Simon B. Bransky, 34 Law Bldg.; Jacob Cohen and Louis Goldberg.

Md., Baltimore.—Publishing.—M. A. P. Publishing Co. incorporated with \$10,000 capital stock by Francis H. Deane, 3909 Park Heights Ave.; Gerald C. Smith, Henry W. Cullen and J. Henry Baker.

Md., Baltimore.—Slaughterhouse.—Andrew W. Schmidt, 78 Harford Rd., will erect slaughterhouse; two stories; fireproof; 14x21 feet; cost \$13,000; plans in progress.

Md., Baltimore.—Towing.—Curtis Bay Towing Co. incorporated with \$50,000 capital stock by Eugene L. Norton of The Marlborough, Jacob France and Robert M. Spedden.

Miss., Greenville.—Garage.—James Ruffler & Machine Co. will establish garage. (See "Miscellaneous Manufacturing Plants.")

Miss., Gulfport.—Laundry.—Gulfport Laundry Co., 25th St., will increase capital stock to \$15,000, enlarge plant and install additional machinery.

Mo., Kansas City.—Wire and Iron.—South-west Wire & Iron Co. incorporated with \$9000 capital stock by H. C. Schumacher, N. F. Woelcher, A. L. Old and others.

Mo., Kansas City.—Contracting.—Union Bridge & Construction Co. increased capital stock from \$50,000 to \$100,000.

Mo., Kansas City.—Stadium.—Gordon & Koppel will establish stadium, to contain baseball diamond, football field, quarter-mile cinder running track, 120-yard straightaway, practice diamond and jumping pits; running track will be banked on turns; will erect grandstand to seat 25,000 spectators; lockers and shower baths under stand; erect two towers at each side of entrance gates containing rest-rooms; stands of lumber supported by concrete piers; entire field surrounded by 10-foot board fence; A. F. Morris, contractor, Kansas City; Owen & Payson, architects, Kansas City; George C. Lowe, manager of field.

Mo., Sikeston.—Plumbing and Heating.—Model Plumbing & Heating Co. incorporated with \$3000 capital stock by H. C. Malo, H. L. Smith and C. R. Hamilton.

Mo., St. Louis.—Grain Elevator.—Illinois Grain Elevator Co. incorporated with \$10,000 capital stock by R. J. Pendleton, J. M. Pendleton, L. A. Cooksey and others.

Mo., St. Louis.—Engineering.—Ball Engineering Co. incorporated with \$50,000 capital stock by P. D. C. Ball, S. L. Swartz and Louis Von Weise.

Mo., St. Louis.—Coal, Wood, etc.—Arthur B. Paule Fuel & Material Co. incorporated with \$15,000 capital stock by Arthur B. Paule, William Schmidt and Elizabeth C. Paule.

Mo., St. Louis.—Storage, etc.—A. B. C. Storage & Van Co. increased capital stock from \$50,000 to \$75,000.

N. C., East Bend.—Publishing.—East Bend Publishing Co. incorporated with \$3000 capital stock; will establish plant to publish newspapers, etc.; contemplates erection of building and installation of electric plant later; plans incomplete; J. T. Smitherman, president; J. G. Huff, vice-president; J. Lee Norman, secretary-treasurer.

N. C., Goldsboro.—Garage.—Wayne Garage Co. incorporated with \$50,000 capital stock by G. L. Edgerton, H. H. Hobbs, Frank I. Ives and John R. Crawford.

N. C., Farmville.—Publishing.—Farmville Publishing Co. incorporated with \$5000 capital stock by John T. Thorne and others.

N. C., Troy.—Publishing.—Montgomeryian Publishing Co. incorporated with \$5000 capital stock by Charles A. Armstrong, O. B. Deaton and A. A. Young.

Okla., Blanchard.—Grain.—Blanchard Grain & Gin Co. incorporated with \$25,000 capital stock by D. L. Lash, S. P. Render, William Morgan, Jr., and others.

Okla., Oklahoma City.—Publishing.—Union Book Co. incorporated with \$10,000 capital stock by W. I. Davis, B. H. Kiper and J. W. Franklin.

Okla., Sulphur.—Laundry.—Sulphur Laundry Co. incorporated with \$7500 capital stock by W. P. Head, J. D. Hughes, O. C. Hughes, all of Sulphur, and Paschal Head of White-wright, Tex.

Mo., Kansas City.—Mausoleum.—Kansas City Mausoleum Co. incorporated with \$50,000 capital stock by Roger J. Hall, James Tappan and Frank L. Miller.

Mo., St. Louis.—Optical Goods.—Moritz Optical Co. incorporated with \$10,000 capital stock by Gustave Moritz, Jennie Moritz and Hugh Cassidy.

Mo., Kansas City.—Printing.—George G. Gaugh Printing & Binding Co. has plans by Edgar P. Madorie, Kansas City, for building; two stories; reinforced concrete; cost \$20,000.

S. C., Charleston.—Abattoir.—Henry Wagner, sanitary engineer, Cincinnati, O., and

J. Merckler Green are interested in proposed establishment of abattoir and rendering plant, to probably cover one acre of land and cost \$25,000.

S. C., Easley—Steam Laundry.—Easley Steam Laundry incorporated with \$3000 capital stock by T. K. Hudgens and B. W. Heden.

S. C., Greenville—Publishing.—Daily Piedmont Co. incorporated with \$20,000 capital stock by J. R. McGee, Lewis W. Parker and C. O. Allen.

S. C., St. Matthews—Publishing.—Calhoun Advance incorporated with \$3000 capital stock by J. B. Prickett and J. C. Hiott.

Tenn., Woodbury—Blacksmith Shop.—Kirk & Prater will erect blacksmith shop to replace burned plant.

Tex., Denison—Grain Elevator.—Denison Mill & Elevator Co. awarded contract to Peerless Construction Co., Wichita, Kans., for erection of elevator with capacity of 250,000 bushels of grain, storehouse and headhouse; machinery to be driven by electricity. (Recently mentioned.)

Tex., El Paso—Stockyards.—John T. Cameron will erect stock pens on 600 square feet of land; cost \$5000.

Tex., El Paso—Stockyards.—Company organized by Edward Morris, C. F. Hunt and W. N. Pence to erect stock pens, warehouse, office buildings and stables and install stock scales and pumping plant; cost \$9300.

Tex., Houston—Grain Elevator.—J. E. Erwine & Co. awarded contract to Richardson & Sutherland, Houston, for erection of grain elevator recently noted; 60x170 feet; mill construction; cost \$14,000; machinery purchased.

Tex., La Porte—Amusement Park.—E. M. Johnson and H. C. Hilliard purchased Beazley's Park, including hotel, cottages, pavilions, bathhouse, etc.; will remodel hotel, erect another hotel, install amusement devices and make other improvements; cost of improvements and property \$50,000.

Tex., Munday—Grain Elevator.—Knox County Elevator Co. incorporated with \$10,000 capital stock by T. W. McGraw, C. L. Mayes and M. H. Lee.

Tex., Pecos—Laundry.—S. J. Fullerson, Dallas, Tex., will establish laundry; machinery purchased.

Tex., San Antonio—Automobiles.—Overland Automobile Co. incorporated with \$10,000 capital stock by R. W. Aiken, W. P. Frantz and A. A. Aiken.

Tex., Temple—Grain Elevator.—A. B. Crouch will open bids in July for erection of grain elevator recently reported burned; mill construction; cost \$5000; will install machinery; five to eight cars grain and chops daily capacity.

Tex., Weatherford—Automobiles.—Texas Auto Co. incorporated with \$8000 capital stock by G. M. Bowie, B. F. Cherry and C. A. Jones.

Va., Norfolk—Plumbing, etc.—Foster-Smith Company incorporated with \$25,000 capital stock; F. P. Smith, president; S. L. Foster, vice-president; J. P. Williams, secretary.

Va., Norfolk—Bottling.—Tripho Lithia Springs Co. incorporated with \$50,000 capital stock; J. L. Roper, president; W. B. Roper, vice-president; R. H. Riddle, secretary.

Va., Richmond—Garage.—Gordon Motor Co. awarded contract for erection of garage; two stories; steel and concrete; cost \$30,000; plans by Carneal & Johnson, Richmond.

Va., Richmond—Garage.—Gordon Motor Co., John G. Hayes, president, had plans prepared by and awarded contract to Carneal & Johnson, Richmond, for erection of garage and sales building; two stories; fireproof; 100x140 feet; cost \$30,000; approximate cost of lathes, milling machines, drill press, etc., to be installed, \$3000.

Va., Staunton—Garage.—Beverly Garage Co. will erect \$15,000 garage.

W. Va., Harpers Ferry—Pleasure Resort.—George S. Markley, Mechanicsburg, Pa., purchased Island Park and will reopen as pleasure resort; will erect hotel, cottages, auditorium and dancing pavilion.

W. Va., Huntington—Contracting.—James Skene & Sons Company incorporated with \$15,000 capital stock by James Skene, Geo. B. Skene, Agnes Skene and Flora B. Skene.

W. Va., Huntington—Contracting.—Huntington Contracting Co. incorporated with \$10,000 capital stock by B. B. Buskirk, S. M. Croft, W. A. Williams and others.

MISCELLANEOUS MANUFACTURING PLANTS

Ala., Birmingham.—Arola Company organized with \$100,000 capital stock; J. R. Brown, president; J. D. Haggard, vice-president; W.

W. Wallace, secretary; Eugene F. Enslen, treasurer; office, 807-808 Empire Bldg.; factory at 120 South 21st St.

Ala., Birmingham—Washing Compound.—George A. Neal and I. A. Pulliam, both of Doniphan, Mo., purchased patent rights of washing compound invented by R. B. Collier; will organize company with \$100,000 capital stock and is considering Birmingham and Little Rock, Ark., as locations for establishment of plant.

Ark., Little Rock—Washing Compound.—George A. Neal and I. A. Pulliam, both of Doniphan, Mo., considering Little Rock as location for establishment of plant to manufacture washing compound. (See Ala., Birmingham.)

D. C., Washington—Detachable Shoe Heels. American Detachable Shoe Heel Co. incorporated with \$15,000 capital stock; J. G. Capers, president, The Cumberland; J. D. Wright, vice-president; J. G. Benton, secretary.

Fla., Key West—Cigars.—Ruy-Lopez Company, John Wardlow, president, awarded contract to Ferguson & Ward, Key West, for erection of cigar factory recently noted; 213 feet by 123 feet 10 inches; reinforced concrete; concrete blocks; W. W. Ward, engineer in charge; construction begun.

Ga., Atlanta—Umbrellas, etc.—Taylor Umbrella Manufacturing Co., recently reported incorporated with \$50,000 capital stock, will manufacture umbrellas, canes and parasols; W. H. Taylor, president; A. E. Taylor, vice-president; H. A. Barwald, secretary. (See "Machinery Wanted.")

Ga., Fairburn—Southern Bag & Backband Co., H. L. Johnson, president, recently noted to establish factory, awarded contract to E. B. Roberts & Bros., Atlanta, Ga., for erection of 50x150-foot and 30x80-foot buildings; fireproof; concrete base and floors; pebble sides; gravel roof; cost \$4000; daily capacity, 30 dozen backbands and 60 dozen horse collars; will install sewing and collar stuffing machinery; capital stock, \$25,000.

Ga., Atlanta—Life Preservers.—Marine Life Preserver Co. incorporated by L. D. McDonald, W. M. Selcer, C. W. Eddins and others.

Ga., Atlanta—Beverages.—Highland Chemical Co. incorporated with \$100,000 capital stock by F. J. Hyland, Arthur Thurman and A. S. Whitfield.

Ga., Raymond—Glove Factory.—Establishment of cotton glove factory is contemplated. Address Raymond Land Co. (See "Machinery Wanted.")

Ky., Mayfield—Snuff.—American Snuff Co., New York, awarded contract to George W. Katterjohn, Paducah, Ky., for erection of \$20,000 brick tobacco building, and to Gus Lockwood, Paducah, Ky., for woodwork.

Ky., Owensboro—Tobacco.—Tom Morton Tobacco Co. incorporated with \$4000 capital stock by Thomas R. Morton, E. J. Valrin, W. Frank Dell and C. D. Ralph.

La., Lockport—Bottling.—Lockport Coca-Cola Bottling Co. organized with \$6000 capital stock; Alfred B. Freeman, president; Arthur Montgomery, vice-president; Charles B. Maybray, secretary-treasurer.

La., New Orleans—Fruit Products.—Southern Fruit Product Co., Ltd., incorporated with \$250,000 capital stock; John G. Burnham, president, Chicago, Ill.; John W. Griffith, first vice-president, New Orleans, La.; C. P. Riley, second vice-president; Burton O. Smith, secretary; William G. Stearns, treasurer, all of Chicago, Ill.; will probably erect plant.

La., New Orleans—Drugs.—Patterson & McKervy incorporated with \$100,000 capital stock by Andrew P. Patterson and John P. McKervy.

Md., Baltimore—Pillows.—Diamond Pillow, Feather & Down Co. incorporated with \$10,000 capital stock by Thomas W. Brundige, 12 East Lexington St.; Franklin L. Groff and Howard M. Taylor.

Md., Baltimore—Macaroni.—Maryland Macaroni Co. incorporated with \$50,000 capital stock; Lewis Elmer, president, Central Ave. and Bank St.; W. S. Elmer, secretary-treasurer; has taken over Maryland Macaroni Works in Highlandtown.

Md., Baltimore—Candles.—Hutchins & Weed Company incorporated with \$10,000 capital stock by John Eck, 1820 East Lombard St.; William M. Hutchins and William B. Weed.

Md., Baltimore—Roofing Composition, etc.—H. Noble Company incorporated with \$3000 capital stock by Eugene Poultney of The Cecil, D. Meredith Reese, William P. Huxford and Frederick Mielcke.

Md., Baltimore—Automobile Tires.—Auto Emergency Tire Manufacturing Co. incorporated with \$15,000 capital stock by Jefferson O. Stinchcomb, 1223 Park Ave.; William Budesheim and Cornelius C. Hazlett.

Md., Boyds—Distillery.—Lichtenstein Bros., Cumberland, Md., purchased Green Valley Distillery; will rebuild the plant, erect new buildings and install new machinery; cost of improvements, \$12,000.

Md., Colgate—Distillery.—Federal Distilling Co. incorporated with \$200,000 capital stock by Hyman Sonn, Harry Kaeger, Justus Oesterlein and others, all of New York.

Miss., Greenville—Sewing Machine Ruffler, etc.—James Improved Ruffler Manufacturing Co. and Delta Machine Works consolidated as James Ruffler & Machine Co.; will add machinery; new plant to represent investment of \$12,000; will manufacture James improved patent sewing machine ruffler, etc., establish garage to accommodate 25 automobiles, etc.

Miss., Meridian—Cement Burying Vaults.—Mississippi & Alabama Cement Vault Co., organized with \$10,000 capital stock; Horace C. Smith, president, Meridian; George C. Morton, vice-president, Birmingham, Ala.; Ed Miller, secretary; J. E. Wright, treasurer, both of Meridian; will manufacture sectional cement burying vault.

Mo., Hannibal—Automobiles.—E. L. Long Manufacturing Co. contemplates establishment of automobile shop equipped for electric-motor drive.

Mo., Kansas City—Cloaks and Suits.—Odor Cloak & Suit Co. incorporated with \$6000 capital stock by Benjamin S. Levy, Charles S. Odor and Louis L. Levy.

Mo., Kansas City—Chemicals.—Windsor Chemical Co. incorporated with \$5000 capital stock by N. P. Ladd, F. Cremer and Haley Reed.

Mo., Springfield—Chemicals.—Reduction & Chemical Co. incorporated with \$15,000 capital stock by J. C. Dysart, T. J. Jenkins and I. P. Cook.

Mo., St. Louis—Towels, etc.—American Towel Co. incorporated with \$20,000 capital stock by Charles D. Robinson, May Robinson, Laura A. Sherman and others.

Mo., St. Louis—Children's Wearing Apparel.—Elma Manufacturing Co. incorporated with \$5000 capital stock by Harry H. Linde, Charles Wolf, Eli Baum and Annis Groat.

Mo., St. Louis—Shoes.—Shaft-Pierce Shoe Co., Fairbault, Minn., will establish plant for manufacturing juvenile shoes.

Mo., St. Louis—Gloves and Shoes.—Slesse Glove & Shoe Co. incorporated with \$50,000 capital stock by William Wertheimer, Adolph Schlesinger, Joseph Wertheimer and others.

N. C., Asheville—Bottling.—Carolina Nova Kola Co. incorporated with \$25,000 capital stock by J. W. Chiles, Charles L. Scott and W. Scott Radeker.

N. C., Kittrell—Medicine.—Mrs. Joe Person's Remedy Co. incorporated with \$150,000 capital stock; J. M. Jordan, president; Frank P. Ward, secretary-treasurer; G. V. Barnes, manager.

Okla., Oklahoma City—Heat Retainer.—Fay Sole Heat Retainer Co. organized with \$50,000 capital stock by W. R. Fay, C. W. Tennant, J. F. Murphy and Henry Roup; will manufacture asbestos compound to hold heat in steel and iron pipes; offices, Insurance Bldg.

Okla., Oklahoma City—Tannery.—W. E. Nations will construct tannery and probably harness factory, to cost \$100,000; will erect experimental station first, to cost \$25,000.

Okla., Oklahoma City—Automobiles.—Pioneer Automobile Co., El Reno, will establish plant for manufacturing automobiles; will increase capital stock from \$20,000 to \$50,000.

Okla., Shawnee—Wire Fence.—W. T. S. Barnes and W. A. Vivian will establish woven-wire fence factory recently noted; building to be 40x70 feet; of brick or concrete; two looms to be installed.

Okla., Muskogee—Plumbing, Supplies, etc.—Crane Company, Chicago, Ill., is reported to erect three-story supply house.

S. C., Greenville—Underwear.—Marion Brawley contemplates establishment of factory to manufacture men's underwear, pajamas, etc. (See "Machinery Wanted.")

Tenn., Knoxville—Marble Plant.—Meadow Marble Mill Co.; E. Nelson High, president, 516 First National Bank Bldg., Cincinnati, O.; incorporated with \$30,000 capital stock by G. P. Walker, George E. Mills, John G. Duncan and others; will continue operation of steam plant.

Tenn., Loudon—Gloves.—Loudon County Glove Manufacturing Co. incorporated with \$5000 capital stock by R. M. Johnston, H. L. Bacon, J. M. Kitchens and others.

Tex., Austin—Tobacco.—H. A. Fruteman, Knoxville, Tenn., contemplates establishment of tobacco factory.

Tex., Runge—Creamery.—V. E. Kuhne is manager of company to erect creamery and

ice plant to cost about \$11,000; Alex. Harrison in charge of construction.

Tex., Taft—Oil Refinery.—Joseph F. Green, Gregory, Tex., superintendent, may be addressed for information relative to oil refinery recently reported to be established in Neuces county at cost of \$1,000,000 by Chas. F. Taft, Cincinnati, O., and associates.

Tex., Terrell—Overalls, etc.—McCullough-Perry Co., Ennis, Tex., will establish plant; daily capacity, 50 dozen overalls, 400 dozen pairs gloves and 100 mattresses.

Va., Norfolk—Drugs.—H. B. Hunter Company incorporated with \$50,000 capital stock; H. B. Hunter, president; H. Baird secretary.

Va., Roanoke—Tramway Cars, etc.—Consolidated Tramway Co. purchased 1 1/4 acres of land west of Roanoke; contemplates erection of new plant; two stories; brick; 150x40 feet, with two "L's" 10x40 feet each; also shop building; manufactures tramway cars and equipment.

Va., Stony Creek, R. F. D. No. 3, Richmond—Distillery.—Stony Creek Distilling Co. incorporated with \$15,000 capital stock; J. A. Donati, president; S. B. Brady, vice-president; James A. Donati, secretary-treasurer, all of Richmond.

W. Va., Durbin—Chemicals.—Willhide Chemical Co. incorporated with \$50,000 capital stock by S. A. Willhide, G. F. Hull, James J. Ogilvie, Jr., and others.

W. Va., New Martinsville—Marble Works.—New Martinsville Granite and Marble Works incorporated with \$5000 capital stock by H. N. Browne, J. R. Brothers, J. L. Barth and others.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ark., Little Rock.—Little Rock Railway & Electric Co., D. A. Hegarty, general manager, will equip repair shops with woodworking machines.

Md., Baltimore.—Pennsylvania Railroad, Alex. C. Shand, chief engineer, Philadelphia, Pa., awarded contract to James Stuart & Co. of New York to erect proposed roundhouse at Orangeville; plans by W. H. Cookman, Philadelphia, Pa.

Tex., Fort Worth.—Northern Texas Traction Co., G. H. Clifford, general superintendent, is completing plans for repair shop; fireproof; 100x165 feet; concrete floors and roof; wood and metal working machinery.

Va., Richmond.—Virginia Railway & Power Co., William Northrop, president, will proceed with proposed improvements, as follows: Two car barns at reservoir terminal and 29th and P Sts. terminal; car barn at Manchester, sandhouse, oilroom, storeroom, blacksmith shop, paint shop, boiler room, transfer table, etc.; will replace wooden carhouses with structures of brick, concrete and steel; combined capacity of new buildings, over 300 cars; main installation will involve erection of \$600,000 car-storage and repair plant; other plans contemplated for extensive renewals and rehabilitation of track, etc.; besides general rearrangement of shops, storage facilities will be enlarged by construction of two carhouses with total capacity of 160 single-truck or 110 double-truck cars; Manchester building will serve for storage and light repairs of interurban cars of Richmond-Petersburg branch, and be divided into two car bays and shop-heating plant, ticket office, baggage room, etc.; construction under direction of C. B. Buchanan, general superintendent, and Calvin Whitely, Jr., chief engineer.

ROAD AND STREET IMPROVEMENTS

Ala., Attalla.—City awarded contract at \$824 to West Construction Co., Chattanooga, Tenn., to construct 520 square yards artificial stone sidewalk and 9000 linear feet artificial stone combined curb and gutter; Hill & Campbell of Gadsden, Ala., are engineers. (Recently mentioned.)

Ala., Birmingham.—Tennessee Coal, Iron & Railroad Co. will construct two miles of road between Dolomite and Wylam at cost of \$5000.

Ala., Mobile.—Mobile county will vote November 8 on issuance of \$500,000 of bonds for road construction. Address County Commissioners.

Ark., Little Rock.—City contemplates repaving Rock and Scott Sts. Address The Mayor.

Fla., Lake City.—City will construct five miles of cement sidewalks; bids will be opened April 25. Address Board of Public Works. (See "Machinery Wanted.")

Fla., Tampa.—Hillsboro County Commissioners, Tampa Bay Land Co. and Swann & Holtsinger Company are completing arrange-

ments for construction of proposed hard-surfaced road from Tampa via Six-Mile Creek to Alafia River.

Ga., Brunswick.—City awarded contract at \$1.55 per square yard to Southern Paving Construction Co., Chattanooga, Tenn., for paving Newcastle St., about 7200 square yards, with brick and pitch filler.

Ga., Macon.—City will pave Cotton Ave., Forsyth St., College St., Georgia Ave., etc.; bids to be opened April 19; C. C. Anderson, City Engineer. (See "Machinery Wanted.")

Ga., Savannah.—City will grade streets in Culver Addition; John W. Howard, City Engineer. (See "Water-works.")

Ga., Union City.—City will vote April 9 on \$20,000 bond issue for street and other improvements; D. A. Carnical, Mayor. (See "Schools.")

Ky., Lexington.—City contemplates repaving Main, North Limestone and South Limestone Sts. Address John Skain, Mayor.

Ky., New Castle.—Henry county will construct 41 miles of roads; bids to be opened April 12; S. Bruce, county judge.

Ky., Henderson.—City awarded contract to Mencham Contracting Co. of Henderson and Miller Contracting Co., Owensboro, Ky., to lay 31 blocks of granite sidewalks, curb and gutters; cost about \$22,000; R. W. Ball, engineer in charge. (Recently mentioned.)

La., Baton Rouge.—East Baton Rouge parish will vote on issuance of \$100,000 of bonds for road improvements. Address Police Jury.

La., Lake Charles.—City awarded contract to P. B. Ligon & Co., Beaumont, Tex., to construct paving recently noted; 7½ miles cement and concrete sidewalk and curb; approximate cost, \$50,000; C. H. Burton, City Engineer; work to begin in 30 days; about four months required for completion.

La., Leesville.—City awarded contract at 16½ cents per square foot to Elmore L. Andrews, Alexandria, La., to construct 30,000 square feet concrete sidewalks. James B. Sterns, City Engineer. (Recently mentioned.)

N. C., Asheville.—Atlantic Bitulithic Co., Richmond, Va., will repave Lexington Ave.

N. C., Asheville.—City contemplates laying 30,000 square yards of additional street paving; materials to include brick, tarvin, macadam, etc.; estimated cost, \$60,000. Address The Mayor.

N. C., Burlington.—City voted \$15,000 bond issue for street improvements. Address The Mayor.

N. C., Mebane.—City voted \$15,000 bond issue for sidewalk and street improvements, including one mile of macadam street and cement sidewalks; engineer not chosen; will expend about \$20,000 for improvements. Address J. T. Shaw, Mayor.

N. C., Raleigh.—City awarded contract at \$46,750 to Peters Bros. & Co., Chicago, Ill., to pave with asphalt Fayetteville St. from Davis to Capital Square, around square, and on Martin St. from Union Station to Fayetteville St.

N. C., Yadkinville.—Yadkin county will petition Legislature for permission to vote bonds for construction of macadam turnpike from Yadkinville to Yadkin River and pay half cost of steel bridge over Yadkin River where Forsythe county road will connect. (See Winston-Salem.)

N. C., Winston-Salem.—Forsyth County Commissioners decided to construct five miles of macadamized road from Levisville to Yadkin River and construct steel bridge across river; Yadkin county will co-operate. (See Yadkinville.)

Okla., Bristow.—City voted issuance of \$500 of bonds for street improvements. Address The Mayor.

Okla., Oklahoma City.—City will grade various streets; bids to be opened April 11; Bob Parman, City Clerk. (See "Machinery Wanted.")

S. C., Blacksburg.—City contemplates paving streets. Address The Mayor. (See "Electric-Light and Power Plants.")

Tenn., Chattanooga.—Board of Public Works, H. F. Van Dusen, chairman, awarded following contracts: To West Construction Co., Chattanooga, at \$49,303.15 for paving 7000 feet of asphalt roadway, granite curb and concrete sidewalk on McCauley Ave., and for 900 linear feet of asphalt paving and curbing on Walnut St. at \$5714.47; also for grading Walnut St. at \$519.81; to C. L. Hutchinson, Chattanooga, at \$4555.60 for grading McCauley Ave.; to Howard Eggleston, Chattanooga, for 1600 linear feet of concrete paving of roadway on West 5th St. at \$6897.57, and for grading West 5th St. at \$435.75.

Tex., Amarillo.—City voted issuance of \$75,000 of bonds for street improvements. Address The Mayor. (Recently mentioned.)

Tex., Fort Worth.—City awarded contract to Metropolitan Construction Co., Kansas City, Mo., to pave Lipscomb St. distance of 2½ miles.

Tex., Granger.—City voted issuance of \$15,000 of bonds for street improvements. Address The Mayor.

Tex., Hillsboro.—City voted \$40,000 bond issue for paving Courthouse Sq. and streets within fire limits. Address The Mayor. (Recently mentioned.)

Tex., Houston.—Harris County Commissioners decided upon paying of 71 miles of road with shell and gravel, to be provided for out of \$500,000 bond issue previously mentioned; bids on several roads have already been invited, and proposals on balance of work will be advertised for from time to time; roads will include Webster Rd., 13 miles; Main St., 8 miles; Washington County Rd., 4½ miles; Westheimer Rd., 4 miles; Cedar Bayou and Crosby Rds., 3½ miles; Lynchburg and Crosby Rds., 3½ miles; Katy Rd., 3½ miles; Scott St., 3 miles; Seabrook Rd., 2½ miles, etc. Bids on Webster Ave., Line, Seabrook and Lynchburg and Crosby Rds. will be received until April 16. John B. Ashe, County Auditor. (See "Machinery Wanted.")

Va., Chase City.—Chase City District Board is preparing to begin construction of proposed roads, for which \$60,000 bond issue was previously reported voted; State gives \$40,000, making total of \$100,000 available. William Gilmore has been engaged to superintend construction; convict labor.

Va., Richmond.—Charles E. Bolling, City Engineer, will invite bids for paving Oakwood Ave. with granite spalls from P St. to Oakwood Cemetery gate, and for granolithic curbs and gutters on M, N and O Sts., between Chimborazo boulevard and 33d St. (Recently mentioned.)

Va., Richmond.—Street committee will appropriate funds for street improvements as follows: Clay ward, general improvements \$20,000, curbing and guttering \$5500; Lee ward, general improvements \$12,000, curbing and guttering \$4900; Jefferson ward, general improvements \$9500, curbing and guttering \$4900; Marshall ward, general improvements \$6000, curbing and guttering \$4900; Madison ward, general improvements \$7000, curbing and guttering \$2400; Henry ward, general improvements \$6000, curbing and guttering \$1200; Monroe ward, general improvements \$4000, curbing and guttering \$1200. Committee awarded contract to I. J. Smith & Co. of Richmond for \$10,000 worth of curbing and guttering in Fairmont.

SEWER CONSTRUCTION

Ala., Attalla.—City Council decided to construct sewer system; approximate cost, \$20,000; bids to be asked after estimate is made; Hill & Campbell, engineers, Gadsden, Ala., to have charge of work; preliminary surveys commenced. (Recently noted.)

Ala., New Decatur.—City will open bids April 15 for construction of certain sewer laterals; John Patterson, Mayor pro tem. (See "Machinery Wanted.")

Fla., Madison.—City awarded contract to Dysard Construction Co., Atlanta, Ga., for nine miles of sewer and erection of disposal plant; H. S. Jaudon, P. O. Box 582, Savannah, Ga., engineer in charge. (Recently noted.)

Fla., St. Petersburg.—City will construct sections Nos. 9, 10, 11 and 12 of proposed sewer system; bids to be opened April 14; W. F. Divine, City Clerk. (See "Machinery Wanted.")

Ga., Atlanta.—Druid Hills Co., O. F. Kaufman, chief engineer, awarded contract to Dysard Construction Co., Atlanta, for construction of seven miles of sewerage.

Ky., Louisville.—City will open bids April 15 for constructing 15th St. and 23d St. sewers, Contract No. 65 of Comprehensive System of Sewerage; P. L. Atherton, chairman Commissioners of Sewerage, Equitable Bldg. (See "Machinery Wanted.")

Ky., Louisville.—James Ferry & Son, Pittsburg, Pa., are lowest bidders for construction of sewers along Frankfort and Third Aves.; estimated cost, \$75,000.

Md., Cumberland.—City will construct three sections of reinforced concrete sewer in Dry Run at Decker's Al., Highland, Columbia and Valley Sts., and relaying 12-inch terra-cotta pipe sewer; bids to be opened April 16; Dr. Thomas W. Koon, John P. Schellhaus and Thomas P. Lashley, Committee on Streets and Alleys. (See "Machinery Wanted.")

Md., Govans.—Maryland Sewerage Disposal Co. incorporated with \$100,000 capital stock by Albert H. Wehr of Wehr, Walden & Dukehart, Law Bldg.; Jacob S. Parr of Parr Bros., York Rd. near Homeland Ave., both of

Baltimore, and others; operations will begin at Govans and extend to other towns.

Okla., Ada.—City will construct lateral sewer in District No. 2; will consist of 10,150 linear feet 8 and 12-inch pipe and appurtenances; bids opened April 4; W. B. Jones, City Clerk.

Okla., Bristow.—City voted issuance of \$18,000 of bonds for sewer construction. Address The Mayor.

Okla., Oklahoma City.—City awarded contract to Hunter & Hunter of Oklahoma City at \$780 to construct septic tank in connection with sewer system.

Okla., Oklahoma City.—City will construct sanitary main sewer along C. O. & G. Railway right of way and main storm sewer along A. T. & S. F. Railway right of way, bids to be opened April 11; Bob Parman, City Clerk. (See "Machinery Wanted.")

Okla., Tahlequah.—City awarded contract at \$26,986 to Southwestern Construction Co., Oklahoma City, Okla., for construction of sanitary sewers; Smedley & Manlove, engineers.

Tenn., Nashville.—Board of Public Works awarded contract at \$1143 to Quinn & Ellis of Nashville to construct sewers in alleys Nos. 612½ and 611, between Quarry St. and Fourteenth Ave. north, and at \$2016.60 to John Broderick to construct sewers on Jackson St. and alleys Nos. 220 and 221, between Sixth and Seventh Aves.

Tex., Abilene.—City will construct concrete storm-water sewer; bids to be opened April 9; C. E. Leonard of Abilene is supervising engineer; E. N. Kirby, Mayor. (See "Machinery Wanted.")

Tex., Amarillo.—City voted issuance of \$40,000 of bonds for extension of sanitary sewer. Address The Mayor. (Recently mentioned.)

Tex., Belton.—Belton Sanitary Sewerage Co. incorporated with \$25,000 capital stock; J. M. Frazier, president; C. B. Smith, secretary; C. F. Denny, treasurer; will construct sewer system to cost \$30,000. (Recently mentioned.)

Tex., Palestine.—Palestine Sewer Co. awarded contract to Trueheart & Jackson, San Antonio, Tex., to construct four additional miles of sewers.

TELEPHONE SYSTEMS

Ala., Gadsden.—Southern Bell Telephone & Telegraph Co., Atlanta, Ga., will construct telephone line from Gadsden to Albertville, Ala.; cost \$10,000.

Ark., Scranton.—Company organized with \$3000 capital stock; Bert Chitwood, president, Prairie View, Ark.; Chas. E. Hays, secretary-treasurer, Scranton; J. W. Becker, vice-president, Dublin, Ark.; J. M. Bankston, manager, Clarksville, Ark.; will establish telephone system, install exchange in Bank of Scranton Bldg. and construct toll lines to Paris, Prairie View, Blaine, Dublin and Clarksville, Ark.

Ga., Hephzibah.—Hephzibah Telephone Co. (recently reported organized with E. C. Morris president) will construct 25 miles of line and install 120 telephones. (See "Machinery Wanted.")

Ga., Jackson.—Southern Bell Telephone & Telegraph Co., Atlanta, Ga., will construct rural telephone line to Fincherville and Woodstown, to accommodate 12 phones.

Ky., Franklin.—Farmers' Telephone Exchange organized with W. M. Lamb president, R. Mayhew vice-president, Leslie House secretary, Granville Leake treasurer; will construct telephone line.

Ky., Rowlett.—Rowlett Telephone Co. incorporated by Pearl Smith, R. V. Mouser and others.

Mo., Independence.—Missouri & Kansas Telephone Co., South Liberty St., will erect building on West Maple Ave.

Okla., Hitchcock.—Hitchcock Mutual Telephone Co. incorporated with \$3000 capital stock by C. L. May, J. H. Schultz, E. M. Fairchild and others.

Okla., Talihina.—Kiamichi Valley Telephone Co. incorporated with \$2000 capital stock by Elmer R. Harrison, Ethel Hanson and J. E. Bentley.

Okla., Yelton.—Ditch Valley Telephone Co. incorporated by A. W. Munde of Yelton, Jacob Wolf, William Dale and William Little, all of Englewood, Kans.

Okla., Tishomingo.—Pioneer Telephone Co. will install \$25,000 telephone exchange to replace burned plant.

Tenn., Memphis.—Memphis Telephone Co., R. H. Polk, general manager, recently noted as planning extension, will construct 25 miles of toll line; construction by company's force.

Tenn., Watertown.—Watertown Home Tele-

phone Co. incorporated with \$5625 capital stock by A. C. Phillips, C. C. Davis, E. P. Jennings and others.

Tex., Cleveland.—Cleveland Telephone Co. increased capital stock from \$2000 to \$15,000.

Va., Brookneal.—Farmers' Independent Telephone Co. incorporated with W. G. Cabaniss, president; C. H. Foster, vice-president; S. A. Reynolds, secretary-treasurer.

TEXTILE MILLS

Ga., Columbus.—Hosiery.—Massey Hosiery Mills incorporated with \$50,000 capital stock by J. D. Massey, C. L. Perkins, G. Gunby Jordan and R. C. Jordan; succeeds Topsey Hosiery Mills; has 210 knitting machines, etc.

Ga., Raymond.—Knit Goods.—Raymond Land Co. is interested in plan to establish knitting mill.

La., New Orleans.—Hosiery.—National Hosiery Mills, reported incorporated last week with \$50,000 capital stock, has organized; will install knitting machinery for daily output of 100 to 125 dozen pairs hose; electric power; dyeing and finishing equipment; has ordered knitters but not dyeing and finishing machinery; Erhard Mayer, president; Isadore Mayer, secretary; main office, 2601 Chartres St. and Lafayette Ave. (See "Machinery Wanted.")

N. C., River Falls.—Cotton Cloth.—River Falls Cotton Mill Co., J. W. Menefee, president, Graham, N. C., awarded contract to Hydraulic Properties Co., 60 Broadway, New York (as reported lately) to engineer entire proposition, including reinforced hollow concrete dam, power-house, reinforced concrete highway bridge, installation of three 600-kilowatt alternators (60-cycle, three-phase) connected direct to three 900-horse-power waterwheels, transmission lines to Graham and Burlington and cotton mill of 10,000 spindles and 240 looms.

N. C., Rockingham.—Cotton Cloth.—Hannah Pickett Mills awarded contract to T. C. Thompson & Bro. of Birmingham, Ala., and Charlotte, N. C., for erection of 100x235-foot weaveroom lately announced; will install 400 looms.

N. C., Winston-Salem.—Cotton Yarns.—P. H. Hanes Knitting Co. will erect building about 500 feet long, one story high, with monitor roof, for cotton-yarn mill recently announced; 10,000 spindles.

Okla., Shawnee.—Cotton Goods.—Chamber of Commerce will announce later names of promoter of cotton mill recently reported; 10,000 spindles.

S. C., Aiken.—Knit Goods.—W. H. Hite will organize \$15,000 stock company to build knitting mill operated by water-power.

S. C., Gaffney.—Sheetings.—Hamrick Mills will erect two-story 250-foot addition and install 15,000 ring spindles, 364 40-inch looms, etc.; cost \$250,000 to \$275,000; all contracts awarded; present equipment, 10,240 ring spindles and 260 broad looms.

S. C., Gaffney.—Sheetings.—Hamrick Mills will build addition; now has 10,240 ring spindles and 260 broad looms.

S. C., Rock Hill.—Ticking and Yarns.—Manchester Cotton Mill Co. will build addition and install 100 looms; present equipment, 18,200 ring spindles, 500 looms, etc.

Tenn., Knoxville.—Underwear, etc.—Stand-ard Knitting Mill has no plans for enlargement; recent report not correct.

Va., Norfolk.—Cotton Cloth.—Dr. J. J. France and Geo. Matthew King are interested in plan to organize company with \$250,000 capital stock for erection of cotton mill.

WATER-WORKS

Ala., Hartselle.—City has engaged Xavier A. Kramer, Magnolia, Miss., as consulting engineer to plan construction of water works. (Recently mentioned.)

Ala., Opelika.—City voted \$85,000 bond issue for construction of water-works and electric-light plant. Address The Mayor. (Recently mentioned.)

Ga., Reidsville.—City will vote on issuance of water-works bonds. Address The Mayor.

Ga., Savannah.—City will extend water mains to Culver tract and grade streets; has acquired 704,000 square feet of land for opening streets; estimated cost, \$16,818; John W. Howard, City Engineer.

Ga., Union City.—City will vote April 9 on \$20,000 bond issue for water-works and other improvements; D. A. Carnical, Mayor. (See "Schools.")

Ky., Lakeland.—Board of Control of Kentucky Charitable Institutions, Frankfort, Ky., is completing arrangements for construction of proposed water-supply system for Lakeland Insane Asylum; system will consist of pipe line seven miles long to

Louisville Water Co.'s plant, reservoir, stand-pipe, receiving reservoir and pumping equipment; amount available, \$65,000; B. H. Davis of Lakeland is chief engineer of asylum.

La., Kinder.—Kinder Ice, Light & Water Co., incorporated with \$25,000 capital stock; Paul O. Moss, president. (See "Electric-Light and Power Plants.")

La., Welsh.—City will construct water-works; A. T. Jones, Mayor.

Md., North East.—G. A. M. Johnson, Leslie, Md., president of company recently noted organized to construct water-works, will open bids June 1 for construction of 100,000-gallon clay-lined reservoir. (See "Machinery Wanted.")

Mo., California.—City will construct water-works; bids opened April 7; cost estimated at \$30,000. Address The Mayor.

Mo., Columbia.—Prof. H. B. Shaw, dean of Engineering School of University of Missouri, and H. H. Humphrey, St. Louis, Mo., recommend expenditure of \$125,000 for extension of water-works and electric-light plant.

Md., Hancock.—City voted issuance of \$30,000 of bonds for construction of water-works. Address The Mayor.

N. C., Thomasville.—City has engaged J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., to make survey and estimate cost of constructing water-works.

Okl., Bristow.—City voted issuance of \$7500 of bonds for extension of water-works and \$9500 for water-works refunding. Address The Mayor.

Tenn., Johnson City.—City will receive bids until May 5 on construction of water supply system recently noted; gravity system; cost within \$375,000; 5,000,000-gallon reinforced concrete covered reservoir; Walter G. Kirkpatrick, consulting engineer, Jackson, Miss.; Wm. M. Dunlap, City Engineer and Commissioner. (See "Machinery Wanted.")

Tenn., Lafayette.—City is considering issuance of \$40,000 of bonds for construction of water-works and electric-light plant. Address The Mayor.

Tex., Fort Crockett.—Kelso & Vautrin, Galveston, Tex., have contract at \$500 for construction of water-distribution system; bid based on following approximate quantities of material in place: Two hundred feet four-inch cast-iron pipe; 6050 feet six-inch cast-iron pipe; 250 feet eight-inch cast-iron pipe; 1070 feet one-inch to two-inch galvanized-iron pipe; 16 fire hydrants; three park hydrants; one crane; Capt. P. Whitworth, constructing quartermaster. (Recently mentioned.)

Tex., Holland.—Holland Water Co. incorporated with \$15,000 capital stock to drill artesian well and furnish city with water.

Tex., Valentine.—City awarded contract to Thomas Dean, Alpine, Tex., to construct water-works.

W. Va., Keyser.—City defeated \$20,000 bond issue for water-works improvements. Address The Mayor. (Recently mentioned.)

W. Va., New Martinsville.—City will open bids April 11 for concrete work on 1200-barrel reservoir now being constructed; Glen Snodgrass, Recorder. (See "Machinery Wanted.")

W. Va., Williamson.—City will construct filtration plant and enlarge reservoir; concrete or stone; will install filtration machinery; approximate cost \$15,000; bond issue recently noted; date of opening bids not set. Address A. C. Pinson.

WOODWORKING PLANTS

Ala., Anniston.—Buggies.—D. P. Hale, Sandersville, Ga., leased building, will erect two larger buildings, manufacture buggies, etc.

Ark., Jonesboro.—Boxes.—Enterprise Box Co. incorporated with \$15,000 capital stock by William F. Hoag, Charles A. Figley and C. F. Long.

Ark., Earle.—Cooperage.—Earle Cooperage Co. incorporated with \$10,000 capital stock by C. T. Whitman (president), L. J. Machan, H. A. Morrison and others.

Ark., Helena.—Cooperage.—American Cooperage Co. incorporated with \$25,000 capital stock by John R. Livingston (president), O. H. Trook, John E. Ashon and others.

Ark., Rogers.—Boxes.—J. W. Robinson, proprietor of Rogers Sash & Door Co., will establish box factory.

Ga., Rome.—Buggies.—Etowah Vehicle Manufacturing Co. reorganized with H. H. Shackleton president, W. A. McCormick superintendent; will double size of plant and contemplates erection of building; will manufacture buggies and wagons in connection with fire apparatus.

Okl., McAlester.—Carriages, etc.—McAlester Carriage and Wagon Factory incorporated with \$25,000 capital stock by Fred C.

Russell, George C. Jones, F. B. Drew and others.

S. C., Abbeville.—Vehicles.—Stack Vehicle Co. incorporated with \$3000 capital stock by J. S. Stack and D. Kerr.

Tenn., Nashville.—Boxes.—Favorite Box Co. increased capital stock from \$75,000 to \$225,000.

Tex., Bay City.—Crates and Boxes.—M. G. Hoffman, Merrill, Wis., is interested in establishment of box and crate factory.

Tex., San Antonio.—Furniture.—San Antonio Furniture Co. incorporated with \$25,000 capital stock by W. J. Pearson, R. L. Robertson and W. A. Hadden.

BURNED

Ala., Birmingham.—Wood-Norris Lumber Co.'s lumber yards; loss \$100,000.

Ala., Demopolis.—Mitchell-Kirvin Lumber Co.'s drykilns.

Ala., Mobile.—W. J. Foley's building, loss \$5000; Coca-Cola Company's plant, loss \$10,000.

Ala., Birmingham.—Western Grain Co.'s warehouse at Ninth Ave. and 23d St.; loss \$50,000.

Ala., Riverton.—Long's Hotel; loss \$3000; J. F. Long, owner.

Ala., Smith's Station.—Gates Bros.' Lumber Co.'s plant and cotton gin; loss \$15,000.

Ark., Fort Smith.—Swift & Co.'s plant and Ketcham Iron Works both damaged; loss \$100,000.

Ark., Texarkana.—International Lumber & Crocketing Co.'s pumphouse; loss \$3000 to \$10,000.

Ga., Murray County.—Residence owned by A. L. Keith, Elton, Ga.; loss \$3000.

Ga., Wrightsville.—W. S. Burns' building; A. J. M. Robinson's building; total loss, \$5000.

Ky., Carlisle.—Charles Layson's residence, tobacco and stock barns; loss \$7000.

Ky., Morganfield.—Bank of Union County was not destroyed by fire; recently incorrectly reported.

La., Alexandria.—Joseph Sterk's building on Lee St.; loss \$5000.

La., Baton Rouge.—H. F. Brunot's residence.

La., Welsh.—Signal Hotel, owned by F. A. Arceneaux, loss \$10,000; Southern Mercantile Co.'s store, loss \$45,000; Martin Bros.' store, loss \$30,000; R. Smith's store, loss \$5000; L. R. Barbe's grocery store, loss \$4000; Charles Dautel's stable, loss \$4000; Cumberland Telephone & Telegraph Co.'s exchange, main office Nashville, Tenn., loss \$10,000; Alex. Verrett's building, loss \$7500; L. Kimball's building, loss \$3000; A. Bourgeois's building, loss \$3000; Eureka Hotel, loss \$2500.

Md., Hebron.—G. A. Bounds & Co.'s warehouse; estimated loss \$6000.

Miss., Terry.—D. H. Jones' residence; loss \$5000.

Mo., Hannibal.—Storrs-Hinton Company's icehouses; loss \$12,000.

Mo., St. Louis.—Diamond Match Co.'s warehouse at De Kalb St. and Lafayette Ave.; loss \$150,000.

N. C., Cronly.—Lime factory owned by B. F. Keith, Wilmington, N. C.; loss \$5000 to \$6000.

N. C., Pittsboro.—B. Moore's sawmill; loss \$2000.

Okl., Tishomingo.—City hall; postoffice; opera-house; I. O. O. F. Hall; Tishomingo Grocery Co.'s store; J. C. Roan's store; E. R. Lucas, Son & Co.'s store, and W. M. Knott's store; loss \$40,000.

Okl., Tishomingo.—Pioneer Telephone Co.'s exchange; City Hall and postoffice; Roan Drug Co.'s store; Lucas Dry Goods Co.'s store; W. H. Knott's store; loss \$50,000.

S. C., Charleston.—Southern Railway's warehouse; D. W. Lum, chief engineer, Washington, D. C.; estimated loss \$6000.

S. C., Charleston.—Tennessee Milling Co.'s warehouse damaged; estimated loss \$5000.

Tenn., Johnson City.—Hotel Carnegie; loss \$150,000.

Tenn., Knoxville.—Oil plant of Standard Oil Co., 26 Broadway, New York, damaged; Tennessee Wood Fiber Plaster Co.'s plant; Donna Hicks' residence; loss \$170,000.

Tenn., Memphis.—John McCarthy's home at 712 North Dunlap St.; loss \$2000.

Tex., Clarksville.—J. H. Roberts & Co.'s cotton gin; loss \$6000.

Tex., Glendale.—Larkin-Pennington Lumber Co.'s saw and planing mill; loss \$5000.

Tex., Huntsville.—D. B. Kline's mill and planer; loss \$4000.

Tex., Itasca.—S. E. Maner's residence; loss \$2000.

Tex., Latexo.—Leavenworth Bros.' planing mill; loss \$5000.

Tex., Temple.—C. W. Wilson's residence at 8th St. and French Ave.; loss \$7000.

Va., Alta Vista.—Long Bros. warehouse.

Va., Alta Vista.—Lane Bros. Co.'s warehouse; estimated loss, \$30,000.

Va., Heathsville.—Collie Headley's sawmill.

Va., Hebron.—G. A. Bounds & Co.'s warehouse; loss \$6000.

Va., South Hill.—South Hill Hotel, owned by Mrs. R. E. Yancey; loss about \$3000.

W. Va., Madison.—Sawmill owned by Geo. Hill of Danville, W. Va.; loss \$3000.

W. Va., Martinsburg.—King Street Theater damaged.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

D. C., Washington.—Harry Wardman is having plans prepared by Beale & Meigs, Washington Loan & Trust Bldg., Washington, for apartment-house, Columbia Heights; 120x120 feet; four stories; fireproof construction; reinforced concrete; cost \$150,000. (Recently noted.)

D. C., Washington.—Bates Warren is having plans prepared by Beale & Meigs, Washington Loan & Trust Bldg., Washington, for four-story apartment-house on 17th St., N. W.; fireproof construction; brick and wood; cost \$70,000.

D. C., Washington.—John Warren is having plans prepared by Beale & Meigs, Washington Loan & Trust Bldg., Washington, for four-story apartment-house; brick; fireproof; reinforced concrete; cost \$70,000.

D. C., Washington.—John Warren and B. H. Warren, Jr., are having plans prepared by Beale & Meigs, Washington Loan & Trust Bldg., Washington, for proposed seven-story apartment-house; fireproof; reinforced concrete; brick; estimated cost \$150,000.

D. C., Washington.—Bates Warren is having plans prepared by Beale & Meigs, Washington Loan & Trust Bldg., Washington, for four-story apartment-house, Columbia Rd. and Mintwood Pl.; fireproof construction; cost \$70,000.

Ga., Augusta.—John J. Cohen, Jr., is having plans prepared by G. Lloyd Preacher, Augusta, for two apartment-houses; cost \$10,000.

Mo., Kansas City.—Otis Goddard will erect apartment-house; eight apartments; cost \$25,000.

Mo., Kansas City.—Kincaid Trust Co. will erect apartment-house; two stories; eight apartments; cost \$25,000.

Mo., Kansas City.—T. C. Mitchell will erect apartment-house; six apartments; cost \$20,000.

Mo., Kansas City.—Dearing Investment Co., 1021 New York Life Bldg., has plans by Malcomb Moore, Kansas City, for apartment and store building recently noted; three stories and basement; 100x80 feet; steam heat; gas and electric lighting; cost \$40,000; bids opened.

Mo., St. Louis.—N. O. Brown will erect four 3 and 4-room apartment-houses.

Tex., Fort Worth.—Sanguinet & Staats purchased site 84x123 feet, on which to erect apartment-house.

Tex., Houston.—Emily B. Williams and J. Q. and J. R. Tabor purchased site on which to erect apartment-house; depth of site, 125 feet.

Va., Norfolk.—Baker & Brinkley of Norfolk are lowest bidders at \$18,125 for erection of apartment-house; three stories; brick; stone trimmings; six apartments of six rooms each; plans by B. F. Mitchell of Norfolk. (Recently mentioned.)

BANK AND OFFICE BUILDINGS

Ark., Pine Bluff.—Citizens' Bank Building Co. incorporated with \$300,000 capital stock to erect bank and office building; John B. Spears, president; D. M. Blumenthal, vice-president; M. E. Bloom, secretary, and J. F. Simmons, treasurer.

Fla., Madison.—Woodmen of the World and other fraternal orders contemplate erecting three-story office and lodge building.

Fla., Madison.—First National Bank will erect bank building.

Fla., Orlando.—Davis & McNeill will erect office and store building; two stories; brick.

Fla., Tarpon Springs.—Sponge Exchange will expend \$10,000 to erect two-story bank and office building (recently noted); 25x100 feet; ordinary construction; pressed brick

on two sides; plans by Bonniwell & Son, St. Petersburg, Fla.; bids opened.

Ga., Hawkinsville.—Hawkinsville Bank & Trust Co. will have plans prepared by E. C. Horsford & Co., Eastman, Ga., for bank building; 27x60 feet; two stories; marble and mahogany fixtures. (Recently mentioned.)

Ga., Matthews.—Bank of Matthews contemplates erection of bank building.

Ga., Quitman.—Citizens' Bank is having plans prepared for two-story bank building costing \$15,000.

Md., Silver Spring.—Silver Spring Bank (J. Herbert Cissel and others) will erect brick bank building.

Mo., Buckner.—Farmers' Bank of Buckner will expend \$10,000 to erect bank building recently noted; two stories; 50x75 feet; brick; steam heat; plans by R. L. McBride, Independence, Mo.; bids opened. Address F. C. Harra. (See "Machinery Wanted.")

N. C., Lilesville.—Bank of Lilesville will rebuild burned bank building.

N. C., Shelby.—Shelby National Bank has repaired building recently noted burned; damage less than reported.

N. C., Winston-Salem.—Murphy & Campbell are having plans prepared by Willard C. Northup of Winston-Salem for office and store building; 50x90 feet; pressed brick; plate-glass front.

S. C., Spartanburg.—W. S. Glenn has plans and specifications by L. D. Proffitt of Spartanburg for office building; steel frame; brick; steam heat.

Tenn., Chattanooga.—Mrs. M. V. Neely is having plans prepared by Huntington & Sears, James Bldg., Chattanooga, for proposed office and store building. (See "Miscellaneous Structures.")

Tex., Beaumont.—Bernard Deutser contemplates erection of five or six-story brick office building to cost \$80,000.

Tex., Cleburne.—National Bank of Cleburne, S. B. Norwood, president, is having plans prepared for bank and office building; five stories and basement; steel and stone; 52x80 feet; fireproof; interior finished in marble; electric elevator; estimated cost, \$100,000.

Tex., Dallas.—Southland Life Insurance Co. adopted plans by Lang & Witchell of Dallas for office building; 12 stories; steel and concrete; estimated cost, \$250,000. (Recently mentioned.)

Tex., Dallas.—H. L. Edwards and Guy Sumpter of Dallas and F. H. Phillips, Greenville, Tex., are having plans prepared by C. D. Hill & Co. of Dallas for 12-story office building.

Tex., Dallas.—Southwestern Insurance Co. will erect office building; about 100x100 feet; fireproof construction; cost from \$250,000 to \$400,000.

Tex., El Paso.—M. D. Roberts and associates contemplate erection of one or two additional stories to Roberts-Banner Building at Mesa and St. Louis Sts., foundation for which is now being built; Morgan & Swenson of El Paso have present contract at \$82,000 for four-story structure; additional stories will be built by separate contracts.

Tex., El Paso.—Anson Mills, 2 Dupont Circle N. W., Washington, D. C., has plans by Trost & Trost of El Paso for office building; 12 stories; reinforced concrete; site, 150x80 feet; cost \$250,000. (Recently mentioned.)

Va., Cleveland.—Bids will be received by People's Bank until April 9 for construction of brick or cement-block bank building. Plans and specifications may be seen at office of George H. Hill, civil engineer and architect, Bluefield, W. Va., or at bank; certified check, 5 per cent. of amount of bid; 60x22-foot building; ordinary construction; hot-water heat; cost \$5000.

Tex., Cleburne.—National Bank of Cleburne is having plans prepared for five-story fireproof bank building to cost \$100,000 to \$125,000.

Tex., Houston.—Union National Bank is considering erection of 10 or 12-story bank and office building.

Tex., Thorndale.—Bids are invited until April 15 for erection of two-story bank building; plans are on file in office of architects, C. D. Hill & Co., Wilson Bldg., Dallas, Tex.; C. D. Hill & Co., Houston, Tex.; First National Bank, Thorndale; Austin National Bank, Austin, Tex.; bids will be received in architects' office, Dallas; certified check for \$500 to accompany each bid.

Va., Roanoke.—Norfolk & Western Railway, C. S. Churchill, chief engineer, is having plans prepared for office building; brick; cost \$40,000.

W. Va., Buckhannon.—People's Bank, G. O. Young, member building committee, will receive bids until April 25 for erection of pro-

posed bank building; five stories; 22x100 feet; fireproof; steel and concrete; front and side pressed brick and terra-cotta; will install elevator; building to contain 28 offices; plans by E. J. Woods, Clarksburg, W. Va.

CHURCHES

D. C., Washington.—St. Stephen's P. E. Church, 14th St., between Columbia Rd. and Irving St., will enlarge edifice; seating capacity 800; cost \$17,000; Rev. George F. Dudley is pastor. (Recently mentioned.)

Ga., Boston.—Missionary congregation, F. M. Bialock, pastor, will erect edifice recently noted; plans not determined.

Ga., Cordele.—Methodist Episcopal Church South will receive bids until April 19 for erection of edifice; drawings and specifications prepared by Architect Charles Edward Choate, 625 Candler Bldg., Atlanta, Ga., from whom copies may be obtained.

Ga., Savannah.—Temple Mickve Israel, Rev. George Solomon, rabbi, is considering erection of synagogue.

Ky., Murray.—Baptist church (H. Boyce Taylor) will open bids about April 15 for erection of addition to Sunday-school room recently noted; about 46 feet square; probably hot-water heat; cost \$5000; plans by A. Killian, Owensboro, Ky.

Ky., Versailles.—Baptist congregation will enlarge edifice. Address The Pastor, Baptist Church.

Miss., Jackson.—West Jackson Methodist Episcopal Church has plans by R. H. Hunt, James Bldg., Chattanooga, for proposed edifice; cost \$30,000; plans not complete.

Mo., St. Louis.—Rev. Anthony Sileman contemplates erection of church building.

Mo., Stockton.—Presbyterian congregation will erect edifice. Address The Pastor, Presbyterian Church.

N. C., Clayton.—Methodist Church has not selected architect to prepare plans for edifice recently noted; brick; furnace heat; cost \$10,000. Address C. W. Horne, chairman building committee.

Okla., Oklahoma City.—White Temple Baptist Church will erect edifice to cost \$103,000 to \$150,000; Dr. L. H. Buxton, president board of deacons.

Okla., Oklahoma City.—First Presbyterian congregation will erect \$100,000 edifice at 9th St. and Robinson Ave. Address The Pastor, First Presbyterian Church.

S. C., Columbia.—First Presbyterian Church has plans by C. C. Wilson of Columbia for Sunday-school building to cost \$15,000.

S. C., Kingstree.—Methodist congregation contemplates erection of edifice to cost \$20,000. Address The Pastor, Methodist Church.

Tex., Rosebud.—M. E. Church South, Rev. S. S. McKenny, pastor, will award contract April 12 for erection of edifice recently noted; brick veneer; furnaces; electric lighting; cost \$15,000; plans by Flanders & Flanders, Dallas, Tex.; bids accompanied by certified check for \$500.

Va., Clarendon.—Catholic Church, Rev. F. P. Lackey, pastor, will expend \$5000 to erect edifice recently noted; 35x65 feet; pebble-dash or brick; gas heating and lighting.

Va., Lynchburg.—First Christian Church is having plans prepared by Laughlin, Pettie & Johnson of Lynchburg for church building; estimated cost, \$30,000.

Va., Ocean View.—Methodist congregation will erect edifice to cost \$3000. Address The Pastor, Methodist Church.

Va., Richmond.—St. James Episcopal congregation purchased site on which to erect edifice. Address The Pastor, St. James' Episcopal Church.

Va., Winchester.—United Brethren Church, Rev. H. E. Richardson, pastor, will erect edifice.

Va., Parksley.—Methodist Church will award contract April 10 for erection of proposed edifice; main auditorium 45x45 feet; Sunday-school 32x50 feet; ordinary construction; steam heat; electric lighting; cost \$12,000; plans by G. R. Ragan, Salem, Va.

W. Va., Buckhannon.—Methodist Episcopal Church has plans by J. C. Fulton, Uniontown, Pa., for edifice recently noted; cost \$36,000; will open bids April 9. Address U. G. Young.

W. Va., Parkersburg.—North Parkersburg M. E. Church is having plans prepared by J. W. Robinson of Parkersburg for edifice to cost \$4000.

COURTHOUSES

La., Baton Rouge.—East Baton Rouge parish will vote on issuance of about \$150,000 of bonds for erection of courthouse. Address Police Jury.

Okla., Altus.—Jackson County Commissioners will open bids April 27 for erection of courthouse and jail to cost \$100,000.

DWELLINGS

Ala., Birmingham.—H. D. Lyman will erect residence; two stories; frame; cost \$4500.

Ala., Ensley.—J. D. Matlock will erect residence; two stories; frame; cost \$5000.

Ala., Ensley.—J. J. Walker will open bids April 10 for erection of nine-room dwelling; steam heat; two stories; frame; cost \$5000.

D. C., Washington.—James H. Springman, 1009 Otis Pl. N. W., has plans by William J. Palmer, Warder Bldg., Washington, for residence at 625 Maryland Ave. S. W.; two stories; brick; cost \$4500.

Fla., De Land.—Ed. W. Wood will erect residence.

Fla., St. Petersburg.—William Shaffer, Franklin, Pa., will erect dwelling.

Fla., White Springs.—M. M. Wamboldt will open bids May 1 for erection of two-story dwelling previously mentioned; 40x50 feet; native stone; hot-air heat; electric lighting; cost about \$4000; plans by W. B. Camp, Jacksonville, Fla.

Ga., Atlanta.—D. S. Rogers is having plans prepared by F. W. Cooksey, Atlanta, for \$6000 bungalow.

Ga., Atlanta.—J. D. Fleming and brother will erect \$10,000 residence and other dwellings.

Ga., Augusta.—Mrs. David Nachman is having plans prepared by G. Lloyd Preacher, Augusta, for \$7500 dwelling.

Ga., Augusta.—W. B. Brigham, Jr., is having plans prepared by G. Lloyd Preacher, Augusta, for \$7500 dwelling.

Ga., Augusta.—F. A. Hardy, president of Diamond Rubber Co., Chicago, Ill., will erect residence.

Ga., Moultrie.—First Baptist Church, A. C. Cree, pastor, will erect \$3000 parsonage.

Ga., Statesboro.—J. A. McDougald will open bids May 1 for erection of 50x80-foot dwelling previously noted; electric lighting; cost \$10,000; plans by W. B. Camp, Jacksonville, Fla.

Ky., Paducah.—Mrs. Jane Tyler Bornemann will erect bungalow; cost several thousand dollars.

La., Algiers, Station A, New Orleans.—Peters Lawton, 514 Callopo St., New Orleans, will erect residence.

La., Baton Rouge.—H. F. Brunt will open bids about June 1 for rebuilding burned dwelling; plans not determined.

La., New Orleans.—St. Andrew's Church will erect rectory; W. H. Fleming, secretary of the Parish.

Md., Baltimore.—M. Fillmore Carter, 1019 Milton Pl., will erect 14 dwellings on Lorman St. between 8th and 9th Sts.; two stories; brick; 14x51 feet; cost \$36,000.

Md., Baltimore.—Herman Duker of Otto Duker & Co., Canton Ave. and Albemarle St., will erect residence on Ash Ave., between University Parkway and 39th St.; two stories and attic; frame construction; stone foundation; cost \$10,000; C. M. Anderson, 324 North Charles St., Baltimore, superintending architect.

Md., Baltimore.—A. A. Sanner, 300 Woodlawn Rd., Roland Park, will open bids April 8 for erection of dwelling recently noted; 28x32 feet; frame; hot-air heat; gas and electric lighting; cost \$4500; plans by O. G. Simpson, American Bldg., Baltimore.

Md., Baltimore.—Clymer Whyte, 104 E. Lexington St., will erect residence.

Md., Baltimore.—James Keely, Baltimore and Bentalou Sts., will erect 20 dwellings on Fayette St. between Pulaski and 1st Sts.; two stories; brick; tin roofs; furnaces.

Md., Baltimore.—Charles Kohlstead, 915 Frederick Ave. ext., will erect six dwellings on Augusta Ave., near Walrad Ave.; cost \$12,000.

Md., Baltimore.—Charles H. Schlosser, Jr., Frederick Ave. Ext. and Yale Ave., is having plans prepared by Julius Litau, 30 Fairview Ave., Baltimore, for eight dwellings at Walbrook and Augusta Aves.; two stories; 16x20 feet.

Md., Baltimore.—Howard Realty Co., Clifton Ave. and 16th St., will erect 12 dwellings on 17th St., between Clifton Ave. and Holly St.; two stories; 16x80 feet; tin roofs; cost \$25,000; plans by Stanislaus Russell, Clifton Ave. and 7th St., Baltimore; construction by owner.

Md., Baltimore.—Charles E. Litsinger has plans by F. E. Beall, 213 St. Paul St., Baltimore, for 10 dwellings on Elm Ave.; two stories; slow burning; slate roofs; cost \$20,000; size 35x50 feet; stucco front; wire lath and patent plaster; concrete foundation; construction by owner.

Md., Baltimore.—Kinneer Realty Co. has plans by Stanislaus Russell, Clifton Ave.

and 7th St., Baltimore, for five dwellings on Presbury St., between Bloomingdale Rd. and 9th St.; two stories; brick; cost \$9000; size 14x50 feet; furnaces; gas and electric lighting; construction by owner.

Md., Chattahoochee Station, P. O. Garrison.—Frederick C. Todd of General Electric Co., 1600 Continental Trust Bldg., Baltimore, Md., has plans by Howard SHL, 11 East Pleasant St., Baltimore, for erection of residence; shingle; hot-water heat; electric lights; cost \$10,000; will award contract in about two weeks.

Md., Hamilton.—George C. Wegfarth, president City & Suburban Realty Co., 227 Eutaw Pl., Baltimore, Md., is planning erection of 100 frame dwellings at Evergreen Lawn, on Harford Rd.

Md., Lauraville.—Requardt & Kratzer are having plans prepared by F. E. Beale, 213 St. Paul St., Baltimore, for cottage at Lauraville; frame; gas and electric lighting; concrete foundation; cost \$2000.

Miss., Natchez.—Henry F. Byrne has plans for \$10,000 residence.

Miss., Ocean Springs.—Alfred Martin, Gary, Ind., will erect residence.

Mo., Kansas City.—David M. Proctor will erect \$500 residence.

Mo., Kansas City.—Grace Episcopal Church, Rev. J. A. Schaad, pastor, will erect rectory.

Okla., Enid.—C. C. Smith will erect two-story residence.

Okla., Enid.—John Clover will erect residence.

Okla., Enid.—John P. Cook and Frank Corry will each erect bungalow.

Okla., Enid.—M. C. Cooley will erect residence.

S. C., Abbeville.—Miss Maggie Brooks will expend \$3500 to erect dwelling; plans by J. H. Casey, Anderson, S. C. (Recently incorrectly noted at Liberty, S. C.)

S. C., Columbia.—L. J. Frink and Hunter A. Gibbs will erect 12 dwellings. (See "Land Developments.")

S. C., Hampton.—J. R. Hoover has plans by G. Lloyd Preacher, Augusta, for \$10,000 dwelling.

S. C., Gaffney.—J. C. Jefferies will erect three dwellings to cost \$2000 each.

S. C., Spartanburg.—A. J. Dillard is having plans prepared for residence.

S. C., Spartanburg.—S. M. Jones is having plans prepared for residence.

Tenn., Chattanooga.—C. C. & C. L. Sheldon will expend \$5000 to erect two dwellings; one 6 rooms, the other 10 rooms; gas and electric lighting; plans by Chas. E. Bearden, Chamberlain Bldg., Chattanooga; day's work. (Recently noted.)

Tenn., Knoxville.—J. Wylie Brownlee will erect three dwellings; two stories; seven rooms; Spanish mission style; green tile roof; cost \$10,000.

Tenn., Nashville.—Mrs. Laura Flemming is having plans prepared by W. E. Parrish & Co., Nashville, for stucco residence.

Tenn., Nashville.—T. H. Logan will erect residence; brick veneered; stone foundation; slate roof; cost \$3000.

Tenn., Nashville.—Verner Moore Lewis has plans by Asmus & Norton, Nashville, for dwelling; two stories and basement; dark-gray brick; mission tiled roof; hot-air heat.

Tenn., Woodbury.—R. D. Doak will erect residence to replace burned structure.

Tenn., Woodbury.—J. C. Drennan will erect residence to replace burned structure.

Tex., Brownwood.—W. P. Logan has plans by Lang & Wittell, Dallas, Tex., for erection of dwelling (recently noted); eight rooms; cost \$4000; bids opened.

Tex., Houston.—Sterling Myer is reported as having plans prepared by Sanguinetti & Staats, Houston, for \$25,000 residence.

Tex., San Antonio.—John W. Kokernot has plans by Albee B. Ayres, San Antonio, for two-story brick residence; cost \$25,000.

Tex., San Antonio.—J. W. Moore, Kansas City, Mo., will erect residence.

Tex., San Antonio.—Roy W. Hearne has plans by Albee B. Ayres, San Antonio, for brick and stone residence; cost \$35,000.

Va., Fredericksburg.—George W. Shepherd has plans prepared by Philip N. Stern, 24 Law Bldg., Fredericksburg, for dwelling recently noted; 46x49 feet; two stories and basement; ordinary construction; brick veneer with hollow-tile backing; bids opened April 14.

W. Va., Wheeling.—H. W. Campbell will erect residence at Glenwood Heights.

GOVERNMENT AND STATE BUILDINGS

La., Shreveport.—Postoffice, etc.—Treasury Department, office of Supervising Architect

James Knox Taylor, Washington, D. C. Sealed proposals will be received until May 16 for construction (including plumbing, gas-piping, heating apparatus, electric conduits and wiring and standard clock system) of U. S. postoffice and courthouse, in accordance with drawings and specification, copies of which may be had from custodian of site at Shreveport or at this office, at discretion of architect.

N. C., Fort Caswell.—Officers' Quarters, etc. H. P. O'Hagan, superintendent of construction at quartermaster's department, has completed plans and specifications for proposed improvements, including two sets of officers' quarters, power plant and ordnance shop; estimated cost \$80,000 to \$90,000; bids are invited; plans and specifications, with complete estimate of work, can be secured from quartermaster's department.

S. C., Columbia.—Hospital.—Martin F. Ansel, Governor, appointed commission, consisting of Dr. J. W. Babcock, superintendent of State Hospital for Insane; Dr. Robert Wilson, Jr., Charleston, S. C., chairman State Board of Health; R. O. Purdy, Sumter, S. C., and others, to purchase additional lands and erect various buildings for State Hospital for Insane; commission authorized to borrow \$100,000 for improvements.

HOTELS

Fla., Orlando.—J. B. Magruder contemplates erection of three-story brick hotel; steam or hot-water heat; probably elevator; plans not determined.

Ky., Louisville.—Schultz Brewing Co. of Milwaukee, Wis., Arthur H. Partridge, local representative, will erect hotel.

Ky., Perryville.—W. J. De Baum will open bids in May for erection of hotel recently noted; 40x60 feet; mill construction; grates and stoves; cost \$2500; plans by Winfield Scott, Perryville.

Miss., Biloxi.—New Orleans, Mobile and Seashore conferences of Methodist Church are considering erection of hotel and auditorium to cost \$20,000 and training school with capacity for 1000 students on Seashore camping ground. Dr. E. L. McGehee, New Orleans, La., is president of New Orleans conference.

Mo., Kansas City.—Edward Butler, owner Century Hotel, 306 West 12th St., has plans by Louis Curtiss of Kansas City for erection of 100-room addition to and remodeling interior of hotel.

Mo., Kansas City.—H. E. Silverstone, 9th and Wyandotte Sts., will erect hotel; three stories; 80 rooms; site purchased for \$35,000.

Okla., Oklahoma City.—E. L. Lawrence and Andrew Kindade are having plans prepared by Bailey & Bailey, Majestic Bldg., Oklahoma City, for hotel and store building; 50x140 feet; fireproof; concrete; vacuum steam heat; electric lighting; two passenger and one freight electric elevators; cost \$200,000. (Recently noted under "Miscellaneous Structures.")

Tex., Bay City.—B. E. Norvell, Bay City Realty Co., is interested in organization of stock company to erect \$50,000 hotel; four-story fireproof building.

Tex., Houston.—John Moore will award contract April 15 for erection of hunting and fishing inn on Red Fish Reef recently noted; two stories; 80x80 feet; ordinary construction; sectional boiler for heating; electric lighting; cost \$20,000.

W. Va., Harpers Ferry.—George S. Markley, Mechanicsburg, Pa., contemplates erection of hotel at Island Park. (See "Miscellaneous Enterprises.")

MISCELLANEOUS STRUCTURES

Ark., Little Rock.—Clubhouse.—Little Rock Railway & Electric Co. will erect extension to carhouse for clubrooms for employees; D. A. Hegarty, general manager.

D. C., Washington.—Cafe.—Columbia Cafe Co., Samuel C. Redman, president, The Montgomery, is having plans prepared by Oscar G. Vogt and M. D. Morrill, both of Corcoran Bldg., Washington, for cafe and rathskeller on first floor of Corcoran Building; first floor decorated with French green lattice; will remove brick partition, making cafe 50 feet wide; exterior will be inclosed with casement windows, which may be opened in summer; erect musicians' gallery; plans call for sanitary lunchroom with terrazzo floor; entire service portion in burnished copper, including wainscoting, counter and fixtures; rathskeller in basement of Flemish design, decorated by heavy oak wainscot and rustic tiling above; red tile floors; cost of improvements \$40,000.

Fla., Jacksonville.—Arcade.—H. & W. B. Drew Company will erect business building

and arcade; to connect with present structure; plate-glass front; glass ventilated skylight.

Fla., Orlando—Business.—J. B. Magruder will expend \$8000 to erect 50x125-foot brick building recently noted; two stories; gas and electric lighting; Mr. Magruder, architect and contractor.

Fla., Pensacola—Business.—Bullock & Caldwell will erect row of business buildings.

Fla., St. Petersburg—Mercantile.—Henry P. Bussey has plans by Edgar Ferndon, St. Petersburg, for proposed mercantile building; fireproof construction; 40x85 feet; cost \$7000; bids opened.

Fla., Tampa—Store.—J. D. O'Brien is having plans prepared by A. H. Johnson, Tampa, for store building; 97x70 feet; cost \$14,000.

Fla., Tampa—Store.—H. C. Paine will erect store building; two stories; 25x100 feet; brick; cut-stone trimmings; cost \$4400.

Ga., Atlanta—Business.—T. R. Sawtell will erect business building.

Ga., Atlanta—Stores.—Atlanta Development Co. will erect two three-story wholesale stores; cost \$25,000 each.

Ga., Atlanta—Business.—H. Y. McCord and George Lowndes purchased site 150 feet deep and will erect business building.

Ga., Atlanta—Business.—Harry G. Poole will erect business building; cost \$30,000.

Ga., Calhoun.—Gordon County Commissioners will open bids April 21 for erection of jail and jailer's dwelling; 39 feet 10 inches by 50 feet 5 inches by 26 feet 6 inches; concrete; stone, brick and steel; probably steam heat; electric lighting; plans by Pauley Jail Co., St. Louis, Mo.; successful bidder to furnish material.

Ga., Columbus—Store.—B. S. Miller will erect four-story store building.

Ga., Columbus—Store.—S. H. Kress & Co., 336 Broadway, New York, will erect three or four-story store building.

Ga., Grantville—Mercantile.—Sewell Merchandise Co. contemplates erection of \$4000 brick store.

Ga., Wrightsville—Business.—W. S. Burns and A. J. M. Robinson will rebuild business buildings reported burned; loss \$5000.

Ky., Middlesboro—Lodge.—Elks' Lodge contemplates erection of lodge building; three stories and basement; brick.

Ky., Pineville—Lodge.—Elks' Lodge is understood as having plans prepared by Baumann Bros., Knoxville, Tenn., for proposed lodge building; three stories; brick; cost \$30,000.

Ky., Winchester—Barn.—Rezin A. Scobee will erect barn, 130x90 feet, for housing wagons, etc.

La., Breau Bridge—Engine-house, etc.—Volunteer Fire Co., No. 1, is contemplating erection of engine-house and meeting-room.

La., New Orleans—Amusement.—Morrison Rink Co. is arranging to erect amusement building for ice skating rink, natatorium, etc.; cost \$250,000.

Md., Baltimore—Store and Dwelling.—Henry Erdman, 1101 Patterson Ave., will erect store and dwelling and two-story dwelling on Fremont Ave. between Laurens and Winchester Sts.; cost \$4000.

Md., Baltimore—Store.—Isadore Noah, 2108 Callow Ave., leased department store at Broadway and Eastern Aves. to J. P. Scully, who will make extensive improvements.

Miss., Cruger—Club.—Pinchback Hunting and Fishing Club will erect 20-room clubhouse; ordinary construction; cost \$4000; details not completed.

Miss., Meridian—Business and Lodge.—A. H. George will erect business and lodge building; four stories; pressed brick; cost \$15,000 to \$20,000.

Miss., Vicksburg—Car Barn.—Vicksburg Traction Co. will soon award contract for erection of car barn; W. B. Moorman, general manager.

Mo., Kansas City—Store.—John G. Hilt will erect store building; two stories; brick; cost \$12,000.

Mo., Kansas City—Clubhouse.—Kansas City-Ozark Fishing and Gun Club, Andrew Young, president, 1103 East 12th St., will erect clubhouse on Current River.

N. C., Charlotte—Stores.—Charlotte Land & Investment Co. will, it is reported, erect store building.

N. C., Charlotte—Jail.—Mecklenburg County Commissioners are planning erection of jail; cost \$50,000 to \$75,000.

N. C., Mocksville—Temple.—Lodge, A. F. and A. M., reported to contemplate erection of \$15,000 temple.

N. C., Durham—Home.—William B. Streeter, Greensboro, N. C., is considering Durham as

location for proposed home for children; is having plans prepared by W. L. Brewer, McDuffie Bldg., Greensboro.

N. C., Greensboro—Clubhouse.—Greensboro Golf Club will erect clubhouse.

N. C., Lilesville—Business.—H. J. Wall will erect brick business block to replace burned structure.

N. C., Winston-Salem.—Twin City Club purchased site 70x96 feet and will erect clubhouse; cost \$40,000.

Okla., Enid—Business.—J. Q. Nycum, Rays-hill, Pa., will erect business building; two stories; cement block; frontage 50 feet; cost \$5000.

Okla., Lawton—Business.—L. A. Trope is having plans prepared by Guy Dale, Lawton, for business building; electric lights; steam heat.

Okla., Lawton—Business.—Estelle and Rebecca Lebrecht are having plans prepared by Guy Dale, Lawton, for business building; electric lights; steam heat.

Okla., McAlester—Business.—New State Iron & Supply Co. will erect additional building; two stories; 100x100 feet; plans completed.

Oklahoma City—Business.—Carroll, Brough & Robinson will erect three-story concrete building; fireproof; concrete floors; replace burned structure.

Okla., Oklahoma City—Business.—Crane Company (main office Chicago, Ill.) will erect five-story business building.

S. C., Anderson—Store.—Anderson Hardware Co. is having plans prepared by J. H. Casey, Anderson, for proposed store building; two stories; 50x100 feet; brick; pressed-brick front; electric freight elevator.

S. C., Columbia—Business.—John E. Lowry will erect business building; two stories; brick; cost \$10,000.

S. C., Spartanburg—Store.—W. S. Glenn will erect number of stores.

Tenn., Chattanooga—Store and Offices.—Mrs. M. V. Neely, 220 McCallie Ave., is having plans prepared by Huntington & Sears, James Bldg., Chattanooga, for proposed store and office building; three stories; 104 feet 7 inches by 87 feet 5 inches; brick; composition roof; concrete floor to basement; steam heat; gas and electric lighting; ground floor to have five stores; second and third floors for offices.

Tenn., Memphis—Poorhouse and Work house.—Shelby County Commissioners will erect concrete wing to poorhouse 60x40 feet; 12 feet high; no ceiling; roof construction at elevation of 12 feet, to be used for tubercular inmates only; also concrete wing to work-house.

Tex., Dallas—Business.—Mrs. C. H. Huffman will erect business building; three stories; brick.

Tex., Brownwood—Mercantile.—B. J. Fitzgerald has plans by L. B. Weinman, Fort Worth, Tex., for mercantile building recently noted; 50x120 feet; ordinary construction; electric lighting; cost \$8500.

Tex., El Paso—Business.—Richard Caples has plans by Trost & Trost, El Paso, for erection of business building; four stories; brick and steel; 25x45 feet; cost \$30,000.

Tex., Goliad—Store.—R. L. Pettus, care of Goliad Bank & Trust Co., will receive bids until April 8 for erection of two-story brick store building; 32.4x75 feet; certified check for \$250, payable to order of architect; plans and specifications on file at Goliad or at office of Jul. Loeffland, architect and superintendent, 118 North Main St., Victoria, Tex.

Tex., Palacios.—H. M. Yaemans will erect brick business building.

Tex., Taylor—Business.—C. Mendel and C. H. Booth will erect business building; two stories; brick and stone.

Va., Abingdon—Store.—H. H. Scott will expend about \$6000 to erect store building recently noted; 46x69 feet; probably fireproof construction; steam heat; electric lighting; will install elevator; architect not selected.

Va., Fredericksburg—Hospital.—Mary Washington Hospital has plans by Philip N. Stern, 24 Law Bldg., Fredericksburg, for additional story to center building.

Va., Lynchburg.—Directors Presbyterian Orphanage planning to expend \$50,000 for erection of buildings to replace burned structures.

Va., Ocean View—Pavilion.—Seaside Amusement Corporation, Norfolk, Va., will soon award contract for erection of proposed pier and dancing pavilion; plans by Neff & Thompson, Seaboard Bank Bldg., Norfolk.

Va., Portsmouth—Auditorium.—Neff & Thompson, Seaboard Bank Bldg., Norfolk, Va., are preparing tentative plans for proposed Chataqua-by-the-Sea Auditorium, to seat 3500 people.

Va., Portsmouth—Store.—B. F. Howell will open bids April 10 for erection of brick store; 33x60 feet; cost \$6000. (See "Machinery Wanted.")

Va., Richmond—Kitchen.—Richmond Business Men's Club will erect kitchen to club headquarters; cost \$10,000.

Va., Richmond—Club.—Richmond Yacht Club, P. A. Heindl, secretary, has plans by Albert F. Hurtt, 1107 East Main St., Richmond, for clubhouse recently noted; 10 rooms and basement; mill construction; brick; concrete foundation; probably fireplaces; electric lighting; cost about \$3000; bids opened.

Va., Richmond—Battle Abbey.—Confederate Memorial Association, J. Taylor Ellyson, president board of trustees, will soon begin construction of proposed Battle Abbey; cost not less than \$150,000.

Va., Salem—Infirmary.—Infirmary committee, Thos. I. Preston, chairman, will receive bids until April 7 for erection of infirmary at Baptist Orphanage of Virginia; certified check for \$100, payable to committee; plans and specifications on file at office of Geo. R. Ragan, architect, Salem; cost \$75,000.

W. Va., Charleston—Club.—Fraternal Order of Eagles, A. F. Wallen, member of committee, has not selected architect to prepare plans for clubhouse recently noted; five or six stories; 50x125 feet; stores on first floor; offices and clubrooms above.

W. Va., Harper's Ferry—Auditorium, etc.—George S. Markley, Mechanicsburg, Pa., will erect auditorium, etc. (See "Miscellaneous Enterprises.")

W. Va., Mt. Hope—Business.—P. M. Snyder will rebuild structure recently reported burned; loss \$7000.

W. Va., Mt. Hope—Hurvitz & Lopinsky will rebuild structure recently reported

W. Va., Princeton—Business.—A. W. Reynolds is having plans prepared by G. R. Ragan, Salem, Va., for proposed business block.

MUNICIPAL BUILDINGS

Ala., Mobile—Hospital.—Proposals will be received at office of Pat J. Lyons, Mayor, for the erection of brick addition to City Hospital until April 11; plans and specifications can be seen at office of City Building Inspector.

Ga., Atlanta—Boat and Club-house.—Architectural Arts League of Atlanta will submit designs to Park Commission on April 5 for combination boat and club-house, costing \$1300, to be built at head of Lake Clara Meer. Dan Carey is general manager of parks. (Recently mentioned.)

Miss., Meridian—Library Buildings.—City contemplates bond issue for erection of library buildings; John W. Parker, Mayor.

Okla., Bristow—City Hall.—City voted issuance of \$10,000 of bonds for erection of city hall. Address The Mayor.

Okla., Cornish—City Hall.—City will erect two-story city hall building recently noted; 26x80 feet; stone and brick. Address Lee Huxel.

Tex., Amarillo—Fire Station.—City voted issuance of \$10,000 of bonds for fire station and equipment. Address The Mayor. (Recently mentioned.)

Tex., El Paso—Zoo.—S. E. Patton, Coles Bldg., El Paso, submitted plans for city zoo at Washington Park.

Tex., Fort Worth—Fire Stations.—Bids will be opened April 6 for erection of three fire stations; plans and specifications will be seen at office of Sanguinet & Staats, First National Bank Bldg., Fort Worth.

W. Va., Wheeling—Library.—Bids for erecting public library on Market St. will be received at office of clerk Board of Education, 1118 Schmulbach Bldg., until April 11; plans and specifications may be seen at office of Chas. W. Bates, architect, 301 Schmulbach Bldg.; Frank Stanton, clerk; W. J. Steen, chairman Building and Grounds Committee. (Recently mentioned.)

RAILWAY STATIONS

D. C., Washington.—Capital Traction Co. is having plans prepared by Beale & Meigs, Washington Loan & Trust Bldg., Washington, for remodeling passenger station; three stories; steel and concrete; cost \$153,000.

Fla., Fernandina.—Florida Railway Co., T. P. Alston, general superintendent, Live Oak, Fla., is arranging, it is reported, for erection of depot.

Fla., Tampa—Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C.; Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., and Tampa Northern Railroad, W. B. Denham, general manager, Tampa, have or-

ganized Tampa Union Station Co., with Mr. Denham as president; Mr. Pleasants, secretary-treasurer, and R. E. Boswell, sixth division superintendent of Seaboard Air Line Railway, Jacksonville, Fla., as auditor; plans will be prepared for union depot to cost from \$175,000 to \$200,000. (Previously mentioned.)

Miss., Georgetown.—A. C. Goodyear, Elliott Sq., Buffalo, N. Y., third vice-president New Orleans Great Northern Railroad Co., should be addressed relative to erection of depot recently reported to be erected.

Mo., Joplin.—Joplin Union Depot Co. awarded contract for about 40,000 yards of excavating on site of union depot to Jennings & Jenkins of Joplin; contract will soon be awarded for erection of building proper according to plans prepared by Louis Curtiss, Kansas City, Mo.; estimated cost of building \$280,000 and of grading \$50,000; A. F. Rust, Kansas City, Mo., is acting chief engineer of depot company. (Further facts recently mentioned.)

N. C., Sanford.—Southern Railway, D. W. Lum, chief engineer, Washington, D. C., will, it is reported, erect passenger station.

Okla., Muskogee.—Missouri, Kansas & Texas Railroad, S. B. Fisher, chief engineer, St. Louis, Mo., is reported to erect 45x150-foot freight depot.

Va., Roanoke.—Virginian Railway, H. Fernstrom, chief engineer, Norfolk, Va., will, it is reported, erect freight station.

SCHOOLS

Ark., Russellville.—Russellville School District, J. A. Clifton, secretary School Board, will open bids April 20 for erection of two eight-room school buildings recently noted; ordinary construction; steam heat; electric lighting; cost \$20,000; plans by Frank W. Gibb, Little Rock, Ark.

Fla., Newberry.—Board of Education, John G. White, chairman, will open bids April 15 for erection of school building; 38x53 feet, with wing 6x20 feet; two stories; brick walls; cost \$5000; plans by W. B. Camp, Jacksonville, Fla.

Ga., Cave Springs.—Hearn Academy will open bids May 1 for erection of school building; 70x80 feet; ordinary construction; frame; cost \$6000. Address J. A. Glover, Rome, Ga. (Recently noted at Rome, Ga.)

Ga., Gainesville.—City will erect \$12,500 school building; bond issue recently noted; ordinary construction; brick. Address The Mayor.

Ga., Homerville.—City will soon award contract for erection of proposed \$8000 school. Address The Mayor.

Ga., LaGrange.—LaGrange Female College is having plans prepared by P. A. Dallis, Atlanta, Ga., for proposed \$50,000 building; three stories; 40x118 feet.

Ga., Rome.—Shorter College, A. W. Van Hoose, president, is planning 12 to 20 buildings.

Ga., Savannah.—Georgia State Industrial College has plans by J. DeBruyn Kops, Savannah, for additional building; concrete waterproof blocks; four belts of pebbled sand stone; four rooms, 24x34 feet each; vestibule floor of reinforced concrete; tiled roof supported by frame trusses; foundation of concrete.

Ga., Union City.—City will vote April 9 on \$20,000 bond issue for schools, streets, water-works and electric lights; D. A. Carmical, Mayor.

La., St. Martinsville.—City will expend about \$20,000 to erect school building recently noted; two stories and basement; 60x75 feet; brick; electric lighting; Favrot & Livaudais, New Orleans, probable architects; bids opened May 20.

Md., Baltimore.—Board of Awards, J. Barry Mahool, president, City Hall, rejected all bids for erection of No. 51 School at Carroll and Windemere Aves., Waverly; 24 rooms; will prepare new specifications and modify original plans prepared by Baldwin & Pennington, Professional Bldg., Baltimore; cost not to exceed \$125,000.

Miss., Biloxi.—Methodist Conference will erect \$20,000 building for school purposes; mill construction; bids opened. Address Mr. Otis, Logtown, Miss.

Mo., Hannibal.—Hannibal School District Trustees contemplate issuing \$90,000 worth of bonds for erection of school.

Mo., Joplin.—City voted \$75,000 worth of bonds for school as follows: Irving, \$13,200; Columbia, \$6500; Emerson, \$12,900; Eugene Field, \$1500; Franklin, for curbing, repairs on outbuilding and interior improvements; Garfield, \$1000; Jefferson, \$500; Lafayette, \$3500; Parr Hill, \$15,000; Washington, \$500; Byers, \$2000; Alcott, \$2000; Central, \$10,000, etc. Address The Mayor. (Recently mentioned.)

N. C., Murfreesboro.—Baptist Women's College, Dr. Bruner, president, is having plans prepared by B. F. Mitchell, Norfolk, Va., for practical rebuilding of college; plan calls for dormitories, power-house, laundry, classrooms, residence for president and other buildings; cost \$150,000.

N. C., Raleigh.—Shaw University will expend \$50,000 for improvements to Leonard Medical School, including enlarging building, establishing laboratories, erection of brick hospital, etc.

Okla., Muskogee.—Woman's Methodist College is reported to erect administration building to cost \$100,000.

Okla., Oklahoma City.—Oklahoma City Woman's College, A. C. Enoch, president board of trustees, will expend \$300,000 to erect administration building and dormitories; former to be in shape of cross, each wing to be 64x192 feet; dormitories to be 52x140 feet; fireproof construction; two stories and basement; plans are being prepared by Smith & Parr, Oklahoma City; T. J. Hodnett will supervise construction; day's work. (Recently noted.)

Okla., Shawnee.—Baptist General Convention of Oklahoma (W. P. Blake), Okmulgee, Okla., will erect administration building; steam heat; electric lighting; cost \$60,000; plans not determined.

S. C., Bennettsville.—Marlboro Graded School District No. 10, J. M. Jenkins, chairman of board, voted \$25,000 school bonds.

S. C., Charleston.—J. E. Smith, secretary Board of Visitors, will receive bids until April 12 for erection of fourth story to The Citadel; plans and specifications on file at office of Todd & Benson, architects, Broad St., Charleston; certified check for \$500, payable to C. S. Gadsden, chairman of board; structure to be 210x125 feet, with 10-foot 8-inch ceiling in clear; brick and steel; to contain 35 rooms; iron stairs; hot-water heat; electric lighting; cost \$35,000.

S. C., St. Matthews.—School District No. 8 of Calhoun county voted \$15,000 worth of bonds to erect school. Address District School Trustees.

Tenn., Johnson City.—State Board of Education, Nashville, Tenn., awarded contract to Bowen Bros., Knoxville, Tenn., for plans for East Tennessee Normal School; main building two and a half stories, and women's dormitory three stories and basement; brick; stone trimmings; cost \$180,000 and \$150,000, respectively. (Previously noted under Tenn., Nashville.)

Tenn., Memphis.—State Board of Education, Nashville, Tenn., awarded contract to Adams & Alsop, Chattanooga, Tenn., for plans and for supervising construction of West Nashville Normal School; model school, eight rooms, two-story-and-basement main building and three-story-and-basement dormitory; brick; stone trimmings; cost \$320,000. (Previously mentioned under Tenn., Nashville.)

Tenn., Murfreesboro.—State Board of Education, Nashville, Tenn., awarded contract to C. K. Koley, Nashville, for plans for Middle Tennessee Normal School; two-story men's building and three-story-and-basement women's dormitory; brick; stone trimmings; cost \$180,000 and \$150,000, respectively. (Previously noted under Tenn., Nashville.)

Tenn., Pulaski.—Massey School is having plans prepared by Runge, Dickey & Gallagher of Nashville, Tenn., for proposed dormitory.

Tex., Alvarado.—City voted \$18,000 bond issue to erect high school. Address The Mayor.

Tex., Colorado.—Colorado Independent School District Trustees will vote on issuing bonds for \$7500 to be added to \$13,000 now available for erection of school to replace burned structure.

Tex., Caldwell.—Birch School District voted tax for erection of school. Address District School Trustees.

Tex., Celina.—City has voted \$3000 bond issue for school building. Address The Mayor.

Tex., Marathon.—City voted \$6000 of bonds to erect annex to school, school in country and one for Mexican children. Address The Mayor.

Tex., Mart.—McLennan County Commissioners accepted plans by E. G. Withers, Stamford, Tex., for proposed \$40,000 school.

Tex., Mount Calm.—Mount Calm Independent School District voted \$10,000 of bonds to rebuild present school. Address District School Trustees.

Tex., Plainview.—City voted \$20,000 bond issue to erect school. Address The Mayor. (Recently mentioned.)

Tex., Roanoke.—Roanoke Independent school district voted \$7000 of taxes and will

erect school. Address District School Trustees.

Va., Farmville.—State Female Normal School will erect \$15,000 infirmary.

Va., Harrisonburg.—C. M. Robinson, architect, of 10th and Main St., Richmond, Va., will receive bids in care of Julian A. Buruss, Harrisonburg, until April 12 for erection of dormitory at State Normal and Industrial School for Women; 48x136 feet; ordinary construction; Paul Vacuum steam-heating system, to connect with old system; cost \$30,000; separate subcontract for plumbing, electric wiring and heating to be awarded later; specifications for this portion of work not yet prepared. (Recently mentioned.)

Va., Norfolk.—Lee & Diehl, Seaboard Bank Bldg., Norfolk, are preparing plans for brick school; cost \$18,000 to \$20,000.

Va., Portsmouth.—City engaged C. M. Robinson, 10th and Main Sts., Richmond, Va., to prepare plans for proposed school.

Va., Waynesboro.—School Trustees will erect addition to present school; capacity equal to present structure.

THEATERS

Ark., Mena.—S. A. Arnold will erect air dome; 60x80 feet; seating capacity 500.

Ky., Morganfield.—Grand Opera-House Co. will rebuild theater recently reported burned; 60x100 feet; ordinary construction; steam heat; electric lighting.

Mo., St. Louis.—Monroe Amusement Co., Monroe L. Meletio, manager, will erect theater; fireproof; brick, steel and reinforced concrete; 53x115 feet; front of gray brick with white-glazed terra-cotta trimmings; copper roof; stage, 34x25 feet; parquet and balcony to have seating capacity of 1900; estimated cost \$50,000; supervision of Christian Brinkop Real Estate Co.

N. C., Asheville.—Palace Theater Co. will erect air dome; seating capacity 800; Diamond Lynch, manager of theater.

Okla., Tulsa.—W. Edward Neff of Majestic Stock Co. secured site on which to erect air dome theater; 50x140 feet; seating capacity 1200.

Tex., Brownsville.—A. Dittman had plans prepared by Mason & Bates for theater recently mentioned; size, 50x120 feet; contract not yet awarded.

Tex., Houston.—F. S. Glover & Sons are preparing plans for remodeling Mason Bldg.; two passenger elevators; marble wainscoting in hallways and courts; stateroom to be furnished as vaudeville theater; cost \$35,000.

Va., Richmond.—Moses Hofheimer and associates will erect theater.

WAREHOUSES

Ala., Birmingham.—R. E. Collins of Collins Co. will erect warehouse; two stories; brick; cost \$15,000.

Fla., Jacksonville.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., will erect warehouse at Clay and Bay Sts.; two stories; brick; 22x30 feet.

Fla., Tampa.—Bates & Hudnall of Tampa are lowest bidders at \$827 for erection of warehouse for Thomas W. Troy Steamship Co., and D. W. Shea of Tampa at \$171 for plumbing; structure will be 120 feet long by 80 feet wide; two stories; galvanized-iron covering; plans by Bonfoey & Elliott of Tampa. (Recently mentioned.)

Ga., Fitzgerald.—Consolidated Grocery Co. is having plans prepared by F. W. Cooksey, Atlanta, Ga., for warehouse; two stories; pressed brick; tile roofing; cost \$20,000.

Ky., Danville.—People's Loose Leaf Tobacco Warehouse Co. organized with \$15,000 capital stock and I. M. Dunn, president; H. D. Stiles, vice-president, and J. S. Van Winkle, secretary-treasurer; will erect tobacco warehouse.

Ky., Winchester.—Rezin A. Scobee will erect warehouse; 130x50 feet.

Mo., Kansas City.—C. F. Morse has plans by Wilder & Wight of Kansas City for warehouse; six stories; 53x117 feet; reinforced concrete; brick front; cost \$50,000.

N. C., Farmville.—Darden Warehouse Co. incorporated with \$10,000 capital stock by James H. Darden, R. L. Joyner and others.

S. C., Walterboro.—Farmers' Warehouse Co. incorporated with \$5000 capital stock by J. D. Risher, J. O. Jacques and B. R. Griffin.

Tex., Houston.—Scanlan estate will, it is reported, erect warehouse; six stories; 142x113 feet; reinforced concrete; mill construction; cost \$30,000.

Tex., Houston.—H. Waddell is having plans prepared by Oile J. Lorehn of Houston for warehouse; fireproof; cost \$50,000.

Tex., Wichita Falls.—Blair-Hughes Grocery

Co. will erect warehouse; one story; 100x140 feet; stone.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Fla., Miami.—F. W. Hahn awarded contract to Hahn & McAuliffe, Miami, for erection of apartment-house (recently noted at Tampa, Fla.); 75x95 feet; fireproof construction; Miami stone; hot-water heat; electric lighting; cost \$35,000; plans by W. C. De Garmo, Miami. (See "Machinery Wanted.")

Md., Baltimore.—Albert Bondy, 1933 Madison Ave., awarded contract to B. W. & E. Minor, 224 West Pratt St., Baltimore, to erect apartment-house at Bolton Ave. and White-lock St.; four stories; hot-water heat; electric lighting; cost \$42,000; plans by W. L. Minor, 20 Clay St., Baltimore. (Recently mentioned.)

Tenn., Chattanooga.—James O. Banks, Eutaw, Ala., through Browne & Burton, 22 East 8th St., Chattanooga, awarded contract to John E. Davis of Chattanooga to erect apartment-house and store building; three stories; 75x100 feet; brick; five stores on ground floor and upper floors for apartments; estimated cost \$35,000 to \$40,000. (Recently noted.)

Tenn., Nashville.—N. B. Elston awarded contract to W. E. Parrish & Co. of Nashville to erect two-story brick apartment-house.

BANK AND OFFICE BUILDINGS

Ala., Dothan.—Farmer, Porter & Crawford awarded contract to Brown & Flowers of Dothan to erect office and store building; three stories; brick.

Ark., Lake City.—Henry Leismaster of Lake City has contract at \$3550 to erect bank building; one story; brick; stone trimmings.

Miss., Tylertown.—J. W. Ball awarded contract to W. W. Easley, Magnolia, Miss., to erect office and store building; two stories; brick; 70x90 feet; cost \$10,000.

N. C., Durham.—Brodie L. Duke decided to increase height of Duke Building, in course of construction, to five stories; estimated cost \$100,000; plans by Hill C. Linthicum of Durham.

Okla., Hugo.—W. H. Darrough awarded contract for erection of two-story office and business building.

S. C., Greenwood.—E. B. Grier and J. B. Park awarded contract to John J. Cain, Columbia, S. C., to erect office and store building; fireproof; stores on first floor and 40 offices on second and third floors; cost about \$40,000; plans by Thomas W. Cothran of Cothran & Cothran of Greenwood.

S. C., Greenwood.—Grier & Park awarded contract to John J. Cain, Columbia, S. C., for erection of office and store building; reinforced concrete construction; to contain 40 offices; plans by T. W. Cothran, Greenwood. (See "Miscellaneous Structures.")

Tex., Goree.—First National Bank awarded contract for erection of bank building; brick; 100x24 feet; plans by L. B. Weiman, 711½ Main St., Fort Worth, Tex. (Recently mentioned.)

Va., Danville.—L. Herman awarded contract to J. T. Wilson Company, Richmond, Va., to erect office building; five stories; frontage, 54 feet.

Va., Portsmouth.—Bank of Portsmouth awarded contract to Hoggson Bros., 7 East 44th St., New York, for erection of bank building.

W. Va., Martinsburg.—Merchants and Farmers' Bank awarded contract to S. A. Westenhaver of Martinsburg for carpentry and masonry and to M. McGrath & Co. of New York for granite work on proposed bank building; heating, plumbing, lighting, marble work, plastering, decorating and furnishing are separate contracts and will be awarded later; structure is to be 42x82 feet; front of granite ornamented with two granite pillars extending to cornice; side and rear walls to be brick; banking-room to be 60 feet long and 32 feet high; mahogany woodwork, with Italian marble base; tiled floor; mezzanine floor over eight-foot-wide entrance; rear part of building to be two stories high; estimated cost when completed \$45,000; George W. Cobb, Jr., of New York prepared plans.

W. Va., Mt. Hope.—Bank of Mt. Hope awarded contract to Snyder Construction Co., Mt. Hope, for rebuilding structure recently reported burned. (See "Machinery, etc., Wanted.")

CHURCHES

Mo., Sikeston.—Christian Church awarded contract to Sikeston Concrete & Construction

Co. to erect edifice; pressed brick; stone trimmings; cost \$6000.

Tenn., Knoxville.—Deaderick Avenue Baptist Church awarded contract to David Gotz & Sons of Knoxville to erect edifice; seating capacity 300; cost \$50,000. (Previously mentioned.)

Tex., Sherman.—Episcopal church awarded contract for erection of edifice to cost \$25,000. Address The Pastor, Episcopal Church.

W. Va., Edgwood, P. O. Wheeling.—St. Michael's Catholic Church awarded contract to J. W. Beltz & Sons Company, Wheeling, W. Va., to erect proposed addition to edifice; two stories; cost \$5000 to \$6000.

COURTHOUSES

Okla., Ardmore.—Carter County Commissioners awarded contract at \$110,302 to Gill Construction Co. of Ardmore to erect fireproof courthouse; plans by Layton, Smith & Hawk, Oklahoma City, Okla. (Recently mentioned.)

S. C., Florence.—Florence County Commissioners awarded contract at \$11,550 to T. Baker Haynesworth of Florence to enlarge and remodel courthouse; addition, 35x52 feet; ordinary construction; low-pressure steam heat; plans by W. J. Wilkins of Florence. (Recently mentioned.)

Tenn., Pikeville.—Bledsoe County Commissioners awarded contract to W. K. Brown & Bros., Chattanooga, Tenn., to erect courthouse; pressed brick; cost \$17,000. (Recently mentioned.)

Tex., Hereford.—Deaf Smith county awarded contract to Falls City Construction Co., Louisville, Ky., to erect courthouse; marble; two stories and basement; plans by Chamberlain & Co., Fort Worth, Tex., and Birmingham, Ala.; structure to be 80x120 feet; fireproof construction; steam heat; electric lighting; cost \$125,000. (Previously mentioned.)

W. Va., Charles Town.—Jefferson County Commissioners awarded contract to S. A. Westenhaver, Martinsburg, W. Va., to erect courthouse; 50x52 feet; ordinary construction; steam heat; electric lighting; cost \$15,000; plans by A. B. Mullett & Co., Washington, D. C. (Recently mentioned.)

DWELLINGS

Ala., Mobile.—Kirk Wilson has plans by Lowmyer & Denham, Mobile, for six dwellings recently noted; cost \$3500 each; contemplates erection of five more dwellings later; construction by owner.

D. C., Washington.—Mary L. Souther awarded contract to Howison & Skinner, Washington, for erection of dwelling at 5622 37th St. N. W.; two stories; frame; cost \$3000; plans by Wood, Donn & Deming, 808 17th St. N. W., Washington.

D. C., Washington.—F. R. Horner, 1300 9th St. N. W., awarded contract to A. J. Pee, 1633 Newton Brookland, Washington, for two two-story frame dwellings at 1255-1257 Kearney St. N. E.; cost \$4500; plans by A. H. Beers, 1333 G St. N. W., Washington.

Ga., Augusta.—Mrs. Meta M. Horne awarded contract to Palmer Contracting Co., Augusta, for erection of dwelling previously mentioned; stucco, with tile roof; cost \$5600; plans by G. Lloyd Preacher, Augusta.

Ky., Worthville.—C. M. Dean will expend \$2000 to erect dwelling recently noted; two stories; 34x32 feet; mill construction; grates and stoves; plans and construction by owner.

Md., Baltimore.—Daniel Donnelly, 1418 East Chase St., awarded contract to H. T. Hill, Baltimore, for erection of 11 dwellings on Montford Ave., between Preston and Biddle Sts.; two stories; brick; 13x43 feet; cost \$18,000; plans by J. W. Shaw, Baltimore.

Md., Baltimore.—Highland Land Co., 763 Calvert Bldg., awarded contract to Charles B. Hunter for erection of block of dwellings on Vickers Rd., near 11th St.; two and a half stories; plans by Herbert C. Aiken, 223 St. Paul St., Baltimore; cost \$22,750.

Md., Baltimore.—George Doeberlein, 1407 East Baltimore St., awarded contract to John Hiltz & Sons Company, 3 Clay St., Baltimore, for erection of residence at 29 East North Ave.; three stories; brick; 30x17½ feet; slag roof; cost \$20,000; plans by Paul Emmart, 210 West Fayette St., Baltimore. (Previously mentioned.)

Md., Baltimore.—Edgar H. Donaldson, Beechwood Ave., Catonsville, Md., awarded contract to J. Henry Smith, 116-30 South Regester St., Baltimore, for erection of residence at Oak Forest Park; cost \$7500; plans by Walter M. Gelske, 606a Equitable Bldg., Baltimore. (Previously mentioned.)

Md., Havre de Grace.—John T. Kennedy awarded contract to L. Lee Howard, Havre

de Grace, for erection of residence on Franklin St.; two and a half stories; 31x38 feet.

Md., Owings Mills.—Mrs. S. S. Belt awarded contract to R. M. Belt, Owings Mills, for erection of 10-room residence.

Okla., Tulsa.—Dan J. Davison awarded contract to W. T. E. Wilson, Tulsa, for erection of residence; two stories and basement; 32x34 feet; cost \$5000.

Tenn., Knoxville.—James G. Starchi awarded contract to S. M. Beaumont, Knoxville, for erection of residence; private water and electric-light plants; cost \$15,000; plans by R. F. Graf, Knoxville.

Tenn., Lookout Mountain.—Morris Friedman awarded contract to F. A. Pagne, St. Elmo, Tenn., for erection of five-room dwelling recently noted; hard pine interior finish; cabinet mantels; electric lighting; cost \$1500; plans by D. V. Stroop, Chattanooga, Tenn.

Tenn., Lookout Mountain.—Alexander Scott awarded contract to Frank E. Saterle, St. Elmo, Tenn., for erection of dwelling recently noted; two stories; eight rooms; frame; shingle roof; hard pine interior finish; electric lighting; concrete footings; cost \$2600; plans by Chas. E. Bearden, Chattanooga, Tenn.

Tex., Brownwood.—Arthur Bell will expend \$5000 to erect two-story dwelling; 36x36 feet; mill construction; brick veneer with white stone trimmings; electric lighting; plans by Mr. Taylor, Brownwood; contract recently noted awarded to A. Morton, Brownwood. (See "Machinery Wanted.")

Va., Roanoke.—Mr. Lawson awarded contract to Herrington & Normoyle, Roanoke, for erection of residence; white brick; porch supported by colonial columns; 16 rooms.

GOVERNMENT AND STATE BUILDINGS

Fla., Fort Barancas.—Storehouse.—War Department, U. S. A., Washington, D. C., awarded contract to Algernon Blair, Montgomery, Ala., for erection of two-story storehouse recently noted; 36x125 feet; ordinary construction; cost \$15,000; plans by War Department.

Va., Danville.—Postoffice and Courthouse.—Treasury Department, Washington, D. C., awarded contract at \$45,244 to R. H. Richardson & Son, Hampton, Va., to enlarge and remodel United States postoffice and courthouse. (Recently mentioned.)

HOTELS

Okla., Tulsa.—Tate Brady awarded contract at \$5500 to Algonite Stone Manufacturing Co., St. Louis, Mo., for ornamental stone and marble front of seven-story Brady Hotel in course of construction. (Recently mentioned.)

S. C., Greenwood.—Oregon Hotel Co. awarded contract to John J. Cain, Columbia, S. C., to erect addition to Oregon Hotel; annex will be three stories, and contain 40 bedrooms and four stores; each room will be equipped with lavatories and hot and cold water; electric elevators; estimated cost, including heating, plumbing, etc., is \$45,000; plans by Thomas W. Cothran of Cothran & Cothran of Greenwood; contracts for heating and plumbing let to Greenwood Hardware Co., Greenwood.

Tex., Beaumont.—Reynolds Hotel Co. awarded contract to J. Merriweather for hotel remodeling recently mentioned; improvements to lobby and poolroom.

Tex., Fort Worth.—A. & L. August awarded contract to H. L. Stevens & Co., Houston and Fort Worth, for erection of hotel and theater; 150x200 feet; reinforced concrete and brick; three stories; cost \$300,000. (Previously mentioned.)

MISCELLANEOUS STRUCTURES

Ala., Gadsden.—Business.—E. T. Schuler awarded contract to W. G. Christopher, Gadsden, for erection of business building; two stories; brick.

D. C., Washington.—Hospital.—Washington Home for Incurables, 8 St., near Wisconsin Ave., N. W., has plans by and awarded contract to William P. Lipscomb, 1405 F St. N. W., Washington, for repairs to building; cost \$3070.58.

Md., Baltimore.—Store.—Walter H. Cook, Garrison Ave., opposite Pennhurst Ave., awarded contract to B. W. Minor, 224 West Pratt St., Baltimore, for erection of drug store at Garrison and Ferndale Aves.; cost \$8500.

Md., Baltimore.—Store and Dwelling.—Henry Tenteberg awarded contract to Joseph Shamberger, 2122 East Baltimore St., Baltimore, for erection of store and dwelling at Reason and Andre Sts., Locust Point; 20x73 feet; two stories; brick; cost \$4000.

Md., Baltimore.—Ship Terminal.—Baltimore Steam Packet Co., 11-13 Light St. Wharf, awarded contract to John Hiltz & Sons Co., 3 Clay St., Baltimore, for erection of produce terminal on Pier 5; frame; 257x60 feet; cost \$16,000.

Miss., Meridian.—Grandstand.—Meridian Baseball Association, Arthur Lynn, president, awarded contract to O. P. Paal, Meridian, for erection of grandstand recently mentioned; ordinary construction; cost \$3000; seating capacity 1000.

Miss., Natchez.—William Steitenroth, Natchez, has contract to erect store building and meat-storage rooms.

Mo., Kansas City.—Grandstand, etc.—Gordon & Koppel awarded contract to A. F. Morris, Kansas City, for erection of grandstand, etc. (See "Miscellaneous Enterprises.")

Okla., Hugo.—Business.—L. W. Vanderpool awarded contract for erection of business building.

S. C., Greenwood.—Stores.—Grier & Park awarded contract to John J. Cain, Columbia, S. C., for erection of store building recently noted; to have one two-story store, two one-story stores and 40 offices; reinforced concrete construction; contracts for heating and plumbing awarded to Greenwood Hardware Co., Greenwood; plans by T. W. Cothran, Greenwood.

Tex., Falfurrias.—Falfurrias Mercantile Co. awarded contract to Albert & Fuess, Cuero, Tex., for erection of mercantile building recently noted; 80x150 feet; fireproof construction; cost \$23,000; plans by J. Leffland, Victoria, Tex.

Tex., Beaumont.—Mercantile.—B. Deutser awarded contract to Thames & Webber, Beaumont, for erection of mercantile building recently noted; two stories; brick; electric lighting; cost \$5000; plans by F. W. Steinman, Beaumont.

Tex., Kenedy.—Store.—E. P. Ruhlman awarded contract to W. O. Stephenson, Floresville, Tex., for erection of store building recently noted; 25x70 feet; ordinary construction; cost \$3000; plans by L. M. Hagy, San Antonio, Tex.

Va., Norfolk.—Store.—H. Crocker will expend \$40,000 to erect store building; 260x64 feet; fireproof construction; plans by Neff & Thompson, Norfolk; contract recently noted awarded to E. Tatterson, Norfolk.

W. Va., Kimball.—Business.—G. Hyman & Sons awarded contract to Graham Contracting Co., Graham, Va., for erection of business block; three stories; brick; cost \$16,000; structure to be 40x120 feet; wired for electric lighting; plans by W. Proctor, North Fork, W. Va. (See "Machinery Wanted.")

RAILWAY STATIONS

Ga., Augusta.—Augusta Railway & Electric Co., James R. League, general manager, awarded contract to Blue Ridge Construction Co., Asheville, N. C., for erection of terminal station previously mentioned; two stories; 80x165 feet; ordinary construction; steam heat; electric lighting; cost \$27,500; plans by G. Lloyd Preacher, Augusta.

Tex., Big Springs.—Texas & Pacific Railway, B. S. Wathen, chief engineer, Dallas, Tex., awarded contract to Hughes O'Rourke Construction Co., Dallas, Tex., to erect depot; main building will be two stories; two wings, one story; cost \$40,000.

SCHOOLS

Tex., Mexia.—City will expend \$10,000 to erect school building; 60x100 feet; ordinary construction; steam heat; plans by Green & Briscoe, Houston, Tex.; contract recently noted awarded to C. W. Fuqua, Shiro, Tex.

Ga., Bremen.—City awarded contract at \$9650 to B. F. & F. L. Wager, Carrollton, Ga., for erection of school; stone and brick; two stories.

Tex., Hereford.—City awarded contract to W. M. Rice, Amarillo, Tex., for erection of proposed \$25,000 high school; buff brick; 90x64 feet; two stories and basement; plans by D. P. Kaufman & Son, Amarillo, Tex.

Tex., Krum.—City awarded contract at \$9200 to George McCormick and C. Godwin, both of Denton, Tex., for erection of proposed school.

Va., Christianburg.—Christianburg Industrial Institute awarded contract to W. W. Gray, Blacksburg, Va., for erection of brick building, to cost \$30,000.

Va., Chatham.—Chatham Training School awarded contract at \$9500 to T. J. Haymes, Chatham, for erection of main building; three stories; 45x75 feet; heating and lighting fixtures, to cost \$2000, not included in contract price.

Va., Salem.—Roanoke College, Dr. J. A.

Morehead, president, awarded contract to King Lumber Co., Charlottesville, Va., for erection of dormitory and gymnasium buildings previously noted; brick and cut stone; collegiate Gothic style; plans by Frank A. Rommel, Weightman Bldg., Philadelphia, Pa.; structures to be 150x35 feet and 40x71 feet, respectively; cost \$46,000. Address contractors.

THEATERS

D. C., Washington.—District Amusement Co. will erect theater at 507 and 509 9th St. N. W.; one story; brick; plans by Rich & Co.; contract awarded to Dittenbaugh Construction Co., both of Washington; structure to be 30x100 feet; semi-fireproof; hot-water heat; electric lighting; cost \$11,000; sub-contracts let.

Tex., Fort Worth.—A. & L. August awarded contract to H. L. Stevens & Co., Houston and Fort Worth, for erection of theater and hotel building. (See "Hotels.")

Va., Newport News.—W. F. and C. T. Crall awarded contract at \$13,470.25 to Harwood & Moss of Newport News to erect theater; brick and stone. (Recently mentioned.)

WAREHOUSES

Md., Baltimore.—Robert Kinnear will erect warehouse at 1705-1707 Mullikin St., six stories; 31x81 feet; brick; contract awarded to B. Howell Hayes, 613 Brune St., Baltimore.

Tex., Dallas.—Sears, Roebuck & Co. of Texas, Elmer L. Scott, Southwestern manager, awarded contract to Buchanan & Gilder, Fort Worth, Tex., to erect warehouse at Arnold and Austin Sts.; three stories and basement; 160x100 feet; tracks running into building will be capable of handling eight cars at once; shipping and receiving capacity of structure estimated at 6000 cars annually; plans by Lang & Wittichell of Dallas.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Anniston.—A dispatch from Philadelphia, Pa., says that Charles W. Eckert of Lancaster, Pa., president of the Gold Ridge Company of Alabama, and others have purchased the railroad of the Vanderbilt Timber Mining Co., between Tallapoosa, Ga., and Hopewell, Ala., which may be extended to Wedowee and Montgomery. Among others interested are W. W. Tompkins, C. S. Tompkins, George Drake and James Dunlop Smith of New York, Milton K. Harr and Joseph F. Stevens of Philadelphia. The line, it is said, would develop gold mines owned by D. C. Blackwell of Anniston, Ala.

Ala., Bay Minette.—Charles Barclay of Bay Minette, president of the Baldwin County Bank, is reported to be head of a movement to build a railroad from Millview to Bay Minette, about eight miles, including a drawbridge over Perdido Bay. It would connect at Millview with the Pensacola, Mobile & New Orleans Railroad.

Ala., Decatur.—W. J. Cottingham of New Decatur is reported pushing plans to build a railroad from Decatur to Russellville, about 50 miles, via Curtis Wells, Neal, Danville, Jessetown, Needmore, Moulton, Landersville, Mt. Hope and Neuburg.

Ark., Hot Springs.—A press report says that a movement has been started to build a mono-rail line from Hot Springs to Spring Lake, Cooper's Clubhouse, Potash Sulphur and the Ouachita River, returning to Hot Springs. The Mayor of Hot Springs may be able to give information.

Ark., McCrory.—The McCrory Transportation Co. is organized, according to a dispatch, to build a line from McCrory northward 16 miles into Jackson county; president, B. Hailey; vice-president, E. A. Hamilton; secretary and treasurer, Bruce Keating.

D. C., Washington.—Wm. C. Whitner, civil engineer of the Richmond & Chesapeake Bay Railway Co., Fredericksburg, Va., is quoted as saying that engineers representing Frank J. Gould and others interested in the line have made an inspection of a route for an electric railway between Washington and LaPlata, Md., but no survey has yet been made.

D. C., Washington.—The Baltimore & Ohio Railroad, it is reported, will build a freight yard in Georgetown at the foot of 30th street. A. M. Kinsman is chief engineer at Baltimore, Md.

Fla., Kissimmee.—The Southern Colonization Co., it is reported, has begun preliminary survey for a railroad from Kissimmee to Alligator Bluff, about 55 miles, via Whit-tier.

Fla., Sanford.—The Sanford Traction Co. and the Sanford & Everglades Railroad Co.,

in which the same parties are interested, have completed a line from Sanford to Cameron City, six miles, and are operating a gaso-line motor passenger car, while freight is hauled by steam. Construction is being pushed from Cameron City to open up new country. Among those interested are S. O. Chase, A. T. Rossetter, J. N. Whitner, F. P. Forster and A. P. Connolly.

Fla., Tampa.—The Tampa Union Station Co. is reported organized to build a terminal station for the Atlantic Coast Line, the Seaboard Air Line and the Tampa Northern Railroad; W. B. Denham, general manager of the Tampa Northern Railroad, Tampa, Fla., was elected president and E. B. Pleasants, chief engineer of the Atlantic Coast Line, Wilmington, N. C., secretary and treasurer. R. E. Boswell is auditor. It is contemplated to build a station to cost from \$175,000 to \$200,000.

Ga., Thomasville.—The Florida Central Railroad will, it is reported, issue \$200,000 of bonds, and it is expected will extend its line about 10 miles to St. Marks Bay, Fla. J. L. Phillips of Thomasville, Ga., is president.

Ky., Harlan.—The Walker Construction Co., which has been surveying for a contemplated railroad from Cincinnati to a connection with the Carolina, Clinchfield & Ohio Railway, is reported also surveying for a line to Hurricane Gap.

La., Alexandria.—An officer of the Alexandria & Western Railway is reported as saying that line has been located from Alexandria via Well, Lamothe, Crane and Quadrate to Wilda, La., and surveys for 23 miles have been made, although preliminary surveys have gone farther west. This includes a plate girder steel bridge over the State Canal. Maximum grade, one-half of 1 per cent.; maximum curve, 3 degrees. I. W. Sylvester is chief engineer at Alexandria, La.

La., Donaldsonville.—John Marks and associates have, it is reported, been granted a franchise for an electric railway along Bayou Lafourche from Donaldsonville to Lockport.

La., Kinder.—The Kinder & Northwestern Railway Co. will build 15 miles of line from Kinder across the Calcasieu River, including a single-span bridge of about 60 feet, to timber land; country level. J. Hugh Walker has contract, which was let March 20, and it is expected to have 10 miles in operation by July 1. The officers are A. J. Peavy, president; Robert J. Wilson, vice-president; Geo. H. Byrnes, treasurer; Ernest H. Payne, secretary; Frank Shutts, chief engineer; general manager to be appointed.

La., Kentwood.—The Kentwood & Eastern Railway is reported to have begun construction of a branch four miles long from Cutlers to several sawmills.

La., Myrtistown.—The Southern Lumber Co. of Myrtistown is reported preparing to build a tramroad which is expected to result in a railroad from Myrtistown, La., to Jefferson, Tex.

Md., Cumberland.—The Western Maryland Railroad has received bids for construction of the extension from Cumberland, Md., to New Haven, near Connellsville, Pa., but several weeks may pass before contract is awarded. H. R. Pratt is chief engineer at Baltimore, Md.

Md., Frederick.—The Frederick Railroad Co. is contemplating change of operation of its line between Frederick and Thurmont from steam to electricity. E. L. Coblenz is president and George S. Anderson superintendent at Frederick, Md.

Md., Hyattsville.—An officer of the Baltimore & Ohio Railroad says there is nothing in the press report that improvements are contemplated at Shepherd's, on the Potomac River.

Md., Westernport.—Rumored that the Cumberland & Westernport Electric Railway will build an extension to Keyser, W. Va. DeWarren H. Reynolds of Cumberland, Md., is president.

N. C., Bolton.—The Waccamaw Lumber Co. of Bolton is reported making plans to extend its railroad from Makatoka to Southport, 20 miles. The present line is 10 miles long and includes the most difficult construction on the route.

Okla., Ardmore.—The Arbuckle & Western Railroad Co. proposes to build a line from Ardmore to Chickasha and Lawton, Okla., about 180 miles. It will also reach Chickasha, Milo, Wheeler and Duncan. About 17 bridges will be required, none over 100 feet long. The country is generally level to rolling, although some of the construction will be heavy. The incorporators and directors are Oscar O. Ayres of Olathe, Kans., at present and later of Ardmore, Okla.; J. R. Pennington, R. A. Hefner and J. A. Bivens, all of Ardmore, and E. S. Ayres of Edgerton, Kans. M. M. Frye is vice-president; E. S.

Ayres, secretary, and the chief engineer is W. T. Forsythe.

Okl., Geary.—Construction is reported begun in Oklahoma on the Cherryvale, Oklahoma & Texas Railway, of which S. M. Porter of Caney, Kans., is president. Previously mentioned March 17.

Okl., Lawton.—Contract is reported signed with the Armour Construction Co. of Kansas City at Walters, Okla., for the building of the Kansas, Lawton & Gulf Railroad, in which J. M. Bellamy of Lawton and others are interested. Contract is also reported with Frank Avery, president of the construction company, to provide the equipment, and work is to begin on ten miles between Walters and the Red River immediately.

Okl., Oklahoma City.—The Oklahoma City & Suburban Railway Co., chartered in August last to build 32 miles of line from Oklahoma City via Britton to Edmond and Moore, has amended its charter to increase the capital from \$250,000 to \$400,000. Those interested are Charles W. Ford, J. J. Johnson, F. S. Coombs, Richard Durrett and W. A. Haller, the latter being general manager.

S. C., Charleston.—At the Charleston Navy Yard, it is reported, bids are asked until 11 A. M., April 30, for the construction of a spur railroad track on the south side of Dock No. 1. The Commanding Officer should be addressed.

S. C., Gaffney.—W. S. Hall, Jr., of Gaffney is reported working on a plan to build a railroad from Gaffney to a connection with the Carolina, Chesapeake & Ohio Railway, which contemplates constructing from Spartanburg to Columbia.

S. C., Hartsville.—The South Carolina Western Railway Co., capital from \$30,000 to \$500,000, has been chartered to build a line from Florence to McBee, 40 miles; also reaching Hartsville and Darlington. S. C. President, W. R. Bousal; the other incorporators being Charles Gibbons, Samuel Lawrence, S. O. Bauersfeld and J. E. Hancock. Mr. Bousal's address is Hamlet, N. C. Survey is reported made from Hartsville to McBee.

S. C., Orangeburg.—The Manning-Hughes Co., of Charlotte, N. C., Camden, S. C., and other points are interested as engineers in the Orangeburg Railway Co., recently chartered to build an electric line from Orangeburg to Springfield, S. C., 30 miles. They are also interested as engineers in charge of the hydro-electric developments proposed by the Edisto Power Co. It is contemplated to extend the railroad to Columbia, Charleston and Augusta.

Tenn., Livingston.—The Livingston Terminal Co. has been chartered by George L. Wilkins, president of the Overton County Railroad; H. W. Estes, J. C. Collum, W. M. Breeding, E. C. Knight and W. Yeatman; capital \$15,000. It will build terminals.

Tex., Archer City.—A dispatch says that the Henrietta Southwestern Railway has completed tracklaying from Scotland to Archer City, about 10 miles.

Tex., Bryan.—The Manufacturers' Record is informed that preliminary survey has been made for the contemplated Bryan & Brazos River Railway, of which W. E. Saunders of Bryan, Tex., is president. Nothing definite decided. The distance to the river is about 15 miles.

Tex., Carrizo Springs.—The Crystal City & Uvalde Railroad Co., according to a dispatch, has completed its extension to Carrizo Springs.

Tex., Dallas.—Construction is reported begun on the interurban railway proposed by R. C. Buckner and E. L. Haralson. The route is from Dallas to the Buckner Orphans' Home, four or five miles.

Tex., Denison.—The Missouri, Oklahoma & Gulf Railway Co., which is building in Oklahoma and will extend to Denison, has also chartered in Texas with \$10,000 capital and incorporators as follows: William Kenefick of Kansas City, E. R. Jones and W. P. Dewar of Muskogee, Okla.; J. T. Buckner, John T. Suggs, R. S. Legate, G. L. Blackford, Edwin Camack, Arthur Miller and Fred Ruark, all of Denison, Tex.

Tex., Gainesville.—The Gainesville, Oklahoma & Western Railway Co. proposes to build 100 miles of line from Bridgeport, Tex., to Madill, Okla., via Gainesville, Tex., including four steel bridges, over Clear Creek, Elm Creek, Denton Creek and Red River, respectively. Prices are desired on railroad equipment and material. The directors are J. C. Whaley, president and general manager; H. W. Stark, vice-president; S. M. King, treasurer; R. E. Thomason, secretary; J. M. Lindsay, G. E. N. Ball, O. F. Scott, J. T. Edwards and Owen Saunders, all of Gainesville, Tex. F. W. Truax is chief engineer.

Tex., Greenville.—The Eastern Texas Traction Co., which proposes to build an interurban railway between Greenville and Wolfe City, has organized as follows: S. P. Perkins, president; J. H. Blocker, first vice-president; L. N. Byrd, second vice-president; J. H. Myrick, third vice-president; J. F. Nichols, secretary, and B. N. White, treasurer.

Tex., Kingsville.—An officer of the St. Louis, Brownsville & Mexico Railway is quoted as saying that construction is expected to begin this month to extend the Tres Palacios branch about 7½ miles to Collegeport, Tex., and contract will be let soon. Track will be laid with the company's forces. E. C. Burgess is chief engineer at Kingsville, Tex.

Tex., Palacios.—The Palacios, San Antonio & Pecos Valley Railway Co. is not yet incorporated, but an officer says that the road will be built without doubt from Palacios via San Antonio through rolling country to Pecos, Tex., and preliminary survey will probably be started within two months. The officers are John P. Pierce, president; W. S. Baldwin, vice-president; W. H. Brooks, second vice-president; H. W. Dean, secretary and general manager; Thomas H. Bonner, treasurer.

Tex., Pecos.—W. G. Trotman of Minneapolis, Minn., is reported interested in a plan to build a railroad from Pecos southeast to Fort Stockton, Tex., 51 miles.

Tex., San Benito.—The San Benito & Rio Grande Railway Co., of which S. A. Robertson is trustee for the owners, proposes to build from San Benito via Arroyo P. O. to the Rio Grande. Contract is let to the Hidalgo Construction Co. of San Benito, and A. M. Gibson is engineer in charge. Bridges required are pile and trestle.

Tex., Smithville.—J. H. Collins of Chicago, Ill., has made a proposition to the Smithville Ten Thousand Club to build the Aransas Pass & Northern Railroad for a cash bonus of \$300,000 and right of way, the money not to be paid until the line is finished; route is via Gonzales, Cuero, Goliad and Refugio. Among those interested are Roger Byrne, J. H. McCollum, E. H. Eagleson, D. S. Shade, Yerger Hill and U. M. Carmichael.

Tex., Temple.—Collum & Howard of Temple are reported to have begun construction on the Temple Northwestern Railway, which will run from Temple to Comanche, Tex.

Va., Saltville.—A letter to the Manufacturers' Record says that the Holston Lumber Co. contemplates building a railroad either from Humbling Gap to Saltville, 3½ miles, or from the same point to Liberty Hill, about the same distance. This, perhaps, refers to the Holston Box & Lumber Co. of Knoxville, Tenn.

W. Va., Bluefield.—Reported that Walton, Witten & Graham of Bluefield have been given a contract by the Red Jacket, Jr., Coal Co. to build six miles of railroad to a new mine.

W. Va., Buckhannon.—The Buckhannon & Clarksburg Electric Railway Co. proposes to build 15 miles of line from Buckhannon to Weston, W. Va., or it may build direct from Buckhannon to Clarksburg, W. Va., about 28 miles. If via Weston, connection may be made with a contemplated extension of the Fairmont & Clarksburg Traction Co. from Clarksburg to Weston. Preliminary survey to be made. The directors and incorporators are U. G. Young, president; E. W. Martin, vice-president; W. H. Fisher, treasurer; G. O. Young, secretary, and R. I. Perrine.

W. Va., Clarksburg.—The proposed extension of the Baltimore & Ohio Railroad along Lost Creek Valley is on the West Virginia & Pittsburgh division; it will run from Lost Creek to West Milford, a little more than 10 miles, and will include five bridges. The country is rolling. A. M. Kinsman is chief engineer at Baltimore, Md.

STREET RAILWAYS

Ala., Birmingham.—The Birmingham Railway, Light & Power Co. has been granted a franchise to build either a single or double-track railway on 34th street from Avenue C to the end of 34th street; also on Avenue E from 27th street to the end of the avenue. A. H. Ford is president and general manager.

Ark., Little Rock.—The Little Rock Railway & Electric Co. is reported, will rebuild two miles of track. D. A. Hegarty is general manager.

Ga., Athens.—The Athens Railway & Electric Co. has been chartered with \$1,000,000 capital to build a street railway and electric power plant. The incorporators are John R. White of Whitehall, Ga.; J. Y. Carithers, W. S. Holman, A. H. Hodgson, C. D. Flanigan, Billups Phinizy, James White, J. M. Hodgson, J. W. Morton and W. T. Bryan, all of Athens.

Ky., Louisville.—The Louisville Railway Co. contemplates construction of an electric railway from Fern Creek to Mount Washington, eight miles.

Md., Elkton.—The Elkton, Fairhill & Oxford Electric Railway & Power Co. of Elkton, Md., according to a press report, contemplates building a line from Elkton to Cherry Hill and Fair Hill, and thence to the Pennsylvania boundary, whence it may extend to Oxford, Pa.; capital \$60,000, which may be increased to \$500,000. Incorporators are Geo. E. L. Hess, Heister Hess, C. P. Canriet, John Lungren and H. Eugene Macklin.

Mo., Kansas City.—A double-track street railway on 24th street, between Main and McGhee streets, is to be built by the Metropolitan Railway under an ordinance just approved.

N. C., Fayetteville.—The Fayetteville Consolidated Street Railway & Power Co. is reported sold at auction to Mrs. M. M. B. McRae of Fayetteville, and improvements may be made. The sale includes right of way of the Cape Fear & Yadkin Valley Railroad from Fayetteville to Hope Mills and the hydro-electric power plant at Manchester.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery and supplies wanted.

Asbestos Shingles.—W. B. Davis, Madison, Fla., wants addresses of manufacturers of asbestos shingles.

Bank Fronts.—A. B. Cook, vice-president Third National Bank, Fitzgerald, Ga., wants illustrations of bank fronts, showing designs, materials used, etc.

Basket Machinery.—Hollister-Whitney Company, 122 South 5th St., Quincy, Ill., wants to correspond with manufacturers of basket machinery.

Belting.—Ro. B. Lambert, Box 173, Waynesboro, Va., wants to represent manufacturers of or dealers in belting.

Bending Machine.—Henderson Manufacturing Co., Henderson, N. C., wants prices on bending machine to bend material for vehicle stick seats as follows: Poplar backs 1x10 to 18 inches up to 50 inches long; oak and ash rails 1x1 up to 50 inches long.

Boat.—See "Lighter."

Bolts.—See "Contractors' Supplies."

Boiler.—O. E. Hughes & Co., 226 Ashley Ave., Charleston, S. C., wants 30-horse-power boiler mounted on wheels; locomotive type.

Boilers.—Fred Watt, Mayor, Athens, Ala., wants prices on boilers.

Boring Machine, etc.—T. C. Haughton, Florence, Ala., wants, for quick shipment, second-hand No. 275 Bentel & Margedant heavy boring machine and No. 254 automatic turning lathe. State how many barrels, heads, reamers, etc., boring machine has, and sizes.

Bridge Construction.—John M. Murch, county auditor, Galveston, Tex., will open bids April 12 for construction of wooden bridge over Snyder's Bayou, Galveston Island, Galveston county; plans and specifications on file in office of county auditor, from whom copies can be had on application; certified check, \$300.

Bridge Construction.—Randolph County Court, F. A. Rowen, clerk, Elkins, W. Va., will receive bids until May 6 for construction of bridge across Cheat River, either at site near Bowden or site near Faulkner, as follows: First, reinforced concrete arch or bridge; second, steel bridge with concrete or stone abutments; third, steel bridge to be placed upon abutments provided by Court; specifications to be furnished by each bidder.

Bridge Construction.—J. P. Goodwin, Supervisor, Greenville, S. C., will receive bids until April 15 for construction of two bridges over Reedy River; plans and specifications made known on day of letting; will sell steel and concrete bridges; certified check, \$500.

Broom Machinery.—Joe F. McIlvaine, Leb-

anon, Mo., wants addresses of manufacturers of broom-corn machinery.

Broom Manufacturers.—Woodstock Hardwood & Spool Manufacturing Co., Box 615, Charleston, S. C., wants to correspond with broom manufacturers.

Building Materials.—Snyder Construction Co., Mt. Hope, W. Va., wants prices on building materials; for extensive reconstruction of burned buildings.

Building Materials.—Hahn & McAuliffe, Miami, Fla., want prices on building materials.

Candy Machinery, etc.—M. Moose, Hickory, N. C., wants addresses of manufacturers of candy machinery.

Candy Machinery, etc.—K. O. Knudson, Clifton, Tex., wants catalogues and prices on candy machinery and supplies.

Canal Construction.—A. C. Spiker, civil engineer of Naylor Drainage District No. 1, Bloomfield, Mo., will award contract April 21 at courthouse in Doniphan, Mo., for construction of main ditch of Naylor Drainage District No. 1; this section is to consist of main ditch as shown in report of viewers and engineers; work to be completed within one year and four months from date of approval of contract; contract, specifications and requirements on file in office of W. H. Stone, Clerk of County Court.

Cars.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and South Penn Sq., Philadelphia, Pa., wants two standard gauge flat cars; 15, 20 or 25 tons capacity; delivered Buffalo, N. Y.

Cardboard.—Emil Zerkowicz, Hungarian Commercial Councillor, 49 Exchange Pl., New York, wants addresses of manufacturers of cardboard for making playing cards.

Cars.—Kinder & Northwestern Railroad Co., A. J. Peavy, president, Kinder, La., wants prices on 30 to 40 skeleton logging cars.

Car Wheels, etc.—Bids will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until May 3 for furnishing cast-iron car wheels and car journal bearings, included in annual estimate for period ending June 30, 1911. Blanks and general information relating to circular No. 572 may be obtained at above office or office of assistant purchasing agents, 24 State St., New York; 55 National Realty Bldg., New Orleans; 1086 North Point St., San Francisco, Cal.; also from U. S. Engineer office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburg, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Chains.—R. H. Lake, Greenville, Miss., wants automobile tire chains.

Cider Presses.—National Can Co., 121 North Caroline St., Baltimore, Md., wants large size cider presses.

Clock System.—Board of Education, A. B. Hill, secretary, Memphis, Tenn., will receive bids until noon on 11th of April for installation of program clock system for Central high school, now being erected. For plans and specifications apply to B. C. Alsop & Co., architects, 564 Randolph Bldg., Memphis.

Coal.—Proposals will be received at office of treasurer Southern Branch N. H. D. V. S. National Soldiers' Home, Virginia, until April 13 for furnishing and delivery of 1500 tons coal, bituminous, for quarter ending June 30, 1910, in accordance with instructions and specifications, copies of which, with blank proposals and other information, may be had upon application to John T. Hume, treasurer.

Concrete Mixer.—A. Morton, 614 Sharp St., Brownwood, Tex., wants second-hand concrete mixer to run with belt pulley; mix yard at a time.

Concrete Work.—City Council, New Martinsville, W. Va., will on April 11 receive bids for concrete work on 12,000-barrel reservoir now being constructed; material, including water, for concrete work, except lumber, will be furnished by city and delivered at foot of present tramway leading to reservoir; plans and specifications can be seen at office of Glen Snodgrass, Recorder.

Contractors' Supplies.—Warner-Wingate Company, 26 Cortlandt St., New York, wants to correspond with Southern manufacturers of bolts, dock spikes, etc.

Contractors' Machinery.—G. A. M. Johnson, Leslie, Md., wants prices on contractors' machinery.

Corn Mill.—Ennis Mill & Feed Co. (R. L. Sparkman), Ennis, Tex., wants corn mill,

including power, mills, shafting, pulley, belts, separators, etc.

Crane.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and South Penn Sq., Philadelphia, Pa., wants standard-gauge locomotive crane, 15 tons capacity, delivered Buffalo, N. Y.

Crate Machinery, etc.—A. P. H. Walker, Spring City, Tenn., wants to correspond with manufacturers of machinery to make berry and peach crates, etc.

Crematory.—City of Waycross, Ga., J. W. Strickland, clerk of Council, wants information on garbage crematory for city of 15,000 to 20,000 population.

Crusher.—Hahn & McAuliffe, Miami, Fla., want rock crusher for soft and somewhat sticky stone.

Cutting Machinery, etc.—Marion Brawley, Greenville, S. C., wants prices on cutters, etc., for underwear factory.

Dredge.—Southern Equipment Co., North Birmingham, Ala., wants prices on suction dredge with 12 or 15-inch pump; complete equipment; Southern delivery. Send full description and photo.

Dyeing Machinery.—National Hosiery Mills, 2601 Chartres St. and Lafayette Ave., New Orleans, La., will order dyeing machinery.

Electric Plant.—Proposals will be received at office of City Electrician, 407 City Hall, Richmond, Va., until April 26 for furnishing and erecting poles, lamp fixtures, wire, transformers and other necessary material in streets, parks and alleys of city for approximately 1000 arc lamps and for lighting public buildings; plans, specifications, proposal forms and form of contract are on file and may be seen at above office and office of E. W. Trafford, consulting engineer, 43-45 Chamber of Commerce Bldg., Richmond; proposals to be made upon forms supplied by city and be accompanied by certified check for 5 per cent. of proposal. Address bids to E. D. Richardson, chairman committee on electricity.

Electrical Railway Equipment.—Southern Equipment Co., W. J. Alford, manager, 2521 25th St., North Birmingham, Ala., will soon place orders for 20 tons No. 6 ground trolley wire, 22 tons No. 00 waterproof feed wire, and hangers and insulators for same; 25 miles of 56-pound rails with angle splice bars and bolts; spikes for 25 miles of track for 56-pound rails; 30 switches with ground hand throw; 30 frogs for 56-pound rails; in 60 days will want bids for four power stations with complete equipment for inter-urban railway; in 30 days will want bids on tonnage of structural steel for bridges, etc., medium steel cold twist reinforcing bars and 20,000 flat tie plates for 56-pound rails.

Electrical Machinery.—Southern Equipment Co., 3521 27th St., North Birmingham, Ala., wants 100-horse-power gasoline engine, connected direct by flange coupling to 75-kilo-watt generator, 250 volts, direct current.

Engine.—Forsyth Manufacturing Co., H. E. Fries, president, Winston-Salem, N. C., wants prices on second-hand engine (Corliss or four-valve preferred); 100 to 125 horse-power.

Engine.—T. C. Haughton, Florence, Ala., wants second-hand 20 to 25-horse-power center-crank engine; quick shipment; state make.

Engine.—Hobbs-Ives Equipment & Machinery Co., Seaboard Bank Bldg., Norfolk, Va., wants second-hand 250-horse-power tandem compound steam engine.

Engines.—Fred Watt, Mayor, Athens, Ala., wants prices on engines.

Evaporating Machinery.—National Can Co., 121 North Caroline St., Baltimore, Md., wants apple and peach evaporating machinery to handle crop of 150-acre orchard.

Farming Implements.—American Agricultural Co., 906 La Salle Bldg., St. Louis, Mo., wants prices on farm machinery, including potato planter.

Fertilizer Machinery.—Marlboro Fertilizer Co., J. L. McLaurin, president, Bennettsville, S. C., wants machinery for mixing, bagging and handling fertilizer.

Feed Mill.—American Agricultural Co., 906 La Salle Bldg., St. Louis, Mo., wants prices on feed-grinding machinery.

Finishing Machinery.—National Hosiery Mills, 2601 Chartres St. and Lafayette Ave., New Orleans, La., will order finishing machinery.

Fire-department Apparatus.—Town of Henderson, N. C., Maurice J. O'Neil, chief fire department, wants bids on combination chemical and hose wagon, carrying 30 feet of ladders; wagon to be of fire-department construction, with 25-gallon chemical tank, and capacity for 600 feet 2½-inch hose; one-horse hitch.

Floor Surfer.—Geo. H. Alexander, Doe St., Birmingham, Eng., wants to correspond with manufacturers of electric or wood-working machinery making floor scrapers or floor-surfacing machines; wants catalogues in triplicate and best export prices.

Gas Engines.—C. C. MacKee Company, No. 4 Queen's Rd., Hongkong, China, wants complete data and prices on gas, gasoline and oil engines; 3 to 50 horse-power; contemplates representing American manufacturers.

Gasoline Engine.—Marlboro Fertilizer Co., J. L. McLaurin, president, Bennettsville, S. C., wants gasoline engine.

Gasoline Engines.—American Agricultural Co., 906 La Salle Bldg., St. Louis, Mo., wants prices on gasoline engines.

Glass Dome.—Hugh H. Trout, Jefferson Surgical Hospital, 1303 Franklin Rd., Roanoke, Va., wants addresses of manufacturers of glass domes; is interested in dome about 25 feet diameter, to cover circular room.

Glass.—B. F. Howell, Portsmouth, Va., wants prices on plate glass.

Glove Machinery.—Raymond Land Co., Raymond, Ga., wants to correspond with manufacturers of cutting and sewing machinery for cotton-glove factory.

Grading.—Office of Commissioners District of Columbia, Washington. Proposals will be received until April 9 for grading aggregating 36,000 cubic yards. Forms of proposals, specifications and necessary information may be obtained from chief Clerk, Engineer Department, Room 427 District Bldg., Washington, D. C.; Cuno H. Rudolph, John A. Johnston, William V. Judson, Commissioners D. C.

Grading.—Bids will be received by Mayor and City Council, Oklahoma City, Okla., until April 11 for grading 9th, 10th, Granger and Alice Sts., etc.; certified check for 3 per cent. of bid; plans and specifications on file with Bob Parman, City Clerk.

Grates.—Joughin Bros., 1502 Franklin St., Tampa, Fla., wants to represent manufacturers of grates.

Hoisting Engine.—O. E. Hughes & Co., 226 Ashley Ave., Charleston, S. C., wants 15-horse-power friction single-drum hoisting engine.

Horseshoe Machinery.—A. M. McGill, Rome, Ga., R. F. D. No. 7, wants prices on horseshoe machinery.

Heating Plant.—P. A. McKenzie, 2214 Maury St., Houston, Tex., wants prices on heating plant.

Holst.—Albert Garren, 1139 Ferry St., Easton, Pa., wants 10x12, or larger, double-cylinder single or double drum holst; friction or reversible-link motion.

Ice Machinery.—John G. Duncan Company, 308 West Jackson Ave., Knoxville, Tenn., wants dealers' and users' prices on 5 or 10-ton ice plant.

Iron Fences.—Joughin Bros., 1502 Franklin St., Tampa, Fla., wants to represent manufacturers of iron fences.

Knife Grinder.—Mount Olive Manufacturing Co., Mount Olive, N. C., wants automatic knife grinder; second-hand or rebuilt; to grind knives 52 inches long; one grinding 72 inches preferred.

Lace Leather.—Ro. B. Lambert, Box 173, Waynesboro, Va., wants to represent manufacturers of or dealers in hog hide lace leather.

Laundry Machinery.—W. G. Blackard, Kimball, W. Va., wants prices on laundry machinery.

Leather.—Bogdanos Freres, Corfou, Greece, wants to represent American manufacturers of leather for footwear.

Lighter.—Hobbs-Ives Equipment & Machinery Co., Seaboard Bank Bldg., Norfolk, Va., wants deck lighter, 90 to 100 feet long, 34 to 36 feet wide, 7 to 8 feet deep; prompt delivery; second-hand.

Locomotives.—Kinder & Northwestern Railroad Co., A. J. Peavy, president, Kinder, La., wants prices on two engines, 35 to 40 tons (moguls or 10-wheelers).

Locomotive.—Empire Engine & Machinery Co., 220 Broadway, New York, wants slightly-used saddle-tank locomotive; standard gauge; about 35-ton; cylinder about 14x22 inches.

Lumber Piles and Steel Castings.—Proposals will be received at office of General Purchasing Offices, Isthmian Canal Commission, Washington, D. C., until May 2 for furnishing above-mentioned articles. Blanks and general information relating to Circular No. 571 may be obtained from above office or offices of assistant purchasing agents, 24 State St., New York city; 55 National Realty Building, New Orleans, La., and 1086 North Point St., San Francisco, Cal.; also from the United States Engineer offices in the following cities: Seattle, Wash.; Los Angeles,

Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburg, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, O.; Cincinnati, O.; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala., and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma, Wash. F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Machine Tools.—See "Rolls" and "Punch and Shear."

Machine Parts.—Cyclone Drill Co., Orrville, O., wants number of machine parts, to be made outside; covering principally all turret or straight turning, with some thread work.

Manteis.—Joughin Bros., 1502 Franklin St., Tampa, Fla., wants to represent manufacturers of manteis.

Mixer.—West Construction Co., Chattanooga, Tenn., wants prices on mixer for sidewalk construction.

Paper Barrels.—C. N. Stevens, 100 First National Bank Bldg., Chicago, Ill., wants to correspond with manufacturers of paper barrels.

Paper Boxes.—William A. Bell, Lemon City, Fla., wants to correspond relative to contracting for waterproof paper boxes for holding moist earth; will place order for 10,000 to start.

Paving.—Board of Public Works, Lake City, Fla., will receive bids until April 25 for five miles of cement sidewalks per plan and specifications furnished by secretary on application; certified check for \$1000 to accompany each bid.

Paving.—Mayor and City Council, Macon, Ga., will open bids April 19 for paving Cotton Ave., Forsyth St., College St., Georgia Ave., 5th St. and Main St. with material specified in specifications prepared by C. C. Anderson, City Engineer; will require 47,570.3 square yards of paving, together with necessary grading equal to volume of paving adopted, including preparation of subgrade and foundations; bids will be received according to engineer's specifications, copy of which may be had on application to Bridges Smith, clerk of Council; certified check for \$500 to accompany each bid; proposal forms furnished by Mr. Smith; samples of paving material to accompany each bid; proposals to be addressed to Bridges Smith, clerk of Council.

Piping.—A. J. Wells, Caddo, Ark., wants 300 to 500 tons eight-inch inside diameter cast-iron pipe weighing 47 pounds per foot; price and earliest date delivery.

Piping.—G. A. M. Johnson, Leslie, Md., wants prices on cast-iron pipe.

Piping.—W. B. Robertson, Newport, Tenn., wants prices on 25 or 30 miles of piping from 12 inch down.

Planer.—Walter Brothers, Middletown, Va., wants 24-inch second-hand heading planer.

Plumbing, etc.—Bids will be received for sanitary plumbing and repairs in county jail, according to plans and specifications to be seen at office of Richmond County Commissioners or at office of L. F. Goodrich, architect. Proposals for plumbing must be separate from proposals for repairs. Proposals will be opened at office of County Commissioners on May 3; E. F. Verdery, chairman; Jas. T. Gardiner, clerk, Augusta, Ga.

Potato Planter.—See "Farming Implements."

Power Stations (Electric).—See "Electrical Railway Equipment."

Pneumatic Cleaning Device.—Board of Education, A. B. Hill, secretary, Memphis, Tenn., will receive bids until noon on 11th of April for installation of pneumatic air cleaning device for Central high school, now being erected. For plans and specifications apply to B. C. Alsop & Co., architects, 564 Randolph Bldg., Memphis.

Pump.—Graham Construction Co., Graham, Va., wants prices on gasoline pump to supply water from well to tank for residence.

Pumps.—American Agricultural Co., 906 La Salle Bldg., St. Louis, Mo., wants prices on pumps.

Pumps.—Fred Watt, Mayor, Athens, Ala., wants prices on pumps.

Punch and Shear.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and South Penn Sq., Philadelphia, Pa., wants quick-action punch and shear for smokestack material; Canadian delivery.

Reservoir.—G. A. M. Johnson, Leslie, Md., will open bids June 1 for construction of 100,000-gallon clay-lined reservoir.

Rolls.—See "Electrical Railway Equipment."

Railway Equipment.—Gainesville, Okla.

homa & Western Railroad Co., J. C. Whaley, president, Gainesville, Tex., wants prices on locomotives, cars, rails, ties, supplies, etc.

Railway Supplies.—Bids will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until May 5 for furnishing steel rails, track frogs, switches, switchstands, tie plates, angle bars, rail braces, track bolts and spikes, etc. Blanks and general information relating to circular No. 573 may be obtained at above office or office of assistant purchasing agents, 24 State St., New York; 55 National Realty Bldg., New Orleans; 1086 North Point St., San Francisco, Cal.; also from U. S. Engineer office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburg, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Rolls.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and South Penn Sq., Philadelphia, Pa., wants set of boiler-shop rolls, four or five feet long, for rolling smokestack; Canadian delivery.

Road Construction.—John B. Ashe, Auditor of Harris County, Houston, Tex., will receive bids until April 16 for paving following roads: Seabrook Rd., 2½ miles; Webster Air Line, 18 miles, and Lynchburg and Crosby Rd., 3 miles; plans and specifications on file in office of County Engineer.

Roofing.—J. S. Pinnix, Reidsville, N. C., wants addresses of manufacturers of and dealers in tin roofing.

Safe, etc.—W. B. Parks, Bank of Merigold, Merigold, Miss., wants prices on safe, vault and bank fixtures.

Safe.—Mutual Savings & Home Co., Oklahoma City, Okla., will want prices on safe.

Safe, etc.—Caroleen Savings Bank, G. W. Hawkins, president, Caroleen, N. C., wants safe and bank fixtures.

Sawmill, etc.—J. E. Henry, Euclid, Ark., wants sawmill and small band saw.

Scales.—J. S. Pinnix, Reidsville, N. C., wants addresses of manufacturers of scales (Buffalo preferred).

Sewer Construction.—Bids will be received at office of Bob Parman, City Clerk, Oklahoma City, Okla., until April 11 for construction of sanitary main sewer along C. O. & G. Railway right of way from Bell Vern Addition to 20th St. in Linwood Place Addition, and for construction of main storm sewer along A. T. & S. F. Railway right of way from 1st to Main St.; plans and specifications on file in office of the City Clerk; each bid to be accompanied by certified check in sum of 3 per cent. of bid.

Sewer Construction.—Bids will be received at office of City Engineer, Cumberland, Md., until April 16 for construction of four sections of reinforced concrete storm-water sewer in Dry Run at Decker's Alley, Highland, Columbia and Valley Sts., and relaying 12-inch terra-cotta pipe sewers; plans and specifications on file in office of City Engineer; Dr. Thomas W. Koon, John P. Shellhaus and Thomas H. Lashley, committee on streets and alleys.

Sewer Construction.—Commissioners of Sewerage, P. L. Atherton, chairman, Louisville, Ky., will receive bids until April 15 for construction of 15th and 23d street sewers, contract No. 65 of comprehensive system of sewerage; work will consist of building 1049 feet of sewer, 54-inch, 48-inch and 45-inch diameter; depth of cut 15 feet to 33 feet, and including 440 cubic yards of concrete and 39 square yards vitrified brick paving; plans and specifications may be seen at office of Commissioners and of Harrison P. Eddy, 14 Beacon St., Boston, Mass.; bids to be accompanied by certified check for 7 per cent. of bid or bidder's bond, as described in proposal form; J. B. F. Breed, chief engineer of Commission.

Sewer Construction.—City Council, New Decatur, Ala., will receive bids for construction of certain sanitary sewer laterals, provided for under improvement ordinances Nos. 184, 185, 186 and 187, until April 15; separate bids to be made for work provided for under each ordinance; plans, profiles and specifications are on file in offices of city clerk and city engineer; John Patterson, Mayor pro tem.; Henry Hartung, city clerk.

Sewer Construction.—E. N. Kirby, Mayor, Abilene, Tex., will receive bids until April 9 for construction of concrete storm-water sewer; about 760 feet of sewer 42 inches in diameter, 1480 feet 48 inches in diameter and 300 feet 60 inches in diameter, with necessary laterals and intakes; average depth of ex-

excavation will be 8 feet; bids to be accompanied by certified check of \$250; plans and specifications are on file at office of City Secretary and of C. E. Leonard, supervising engineer, Abilene; plans and specifications will be furnished on receipt of cash deposit of \$5.

Sewer Construction.—W. F. Divine, City Clerk, St. Petersburg, Fla., will receive bids until April 14 for construction of Sections Nos. 9, 10, 11 and 12 of proposed sewer system; separate bids to be submitted on each section; certified check for 10 per cent. of bid to accompany proposals on Sections Nos. 9, 10 and 11, and for 5 per cent. of bids to accompany those on Section No. 12; work to be constructed under supervision of Sanitary Committee and City Engineer in accordance with plans and specifications on file in office of City Clerk.

Sewing Machines.—Marion Brawley, Greenville, S. C., wants prices on sewing machines for underwear factory.

Shear.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and South Penn Sq., Philadelphia, Pa., wants second-hand alligator shear, capable of taking eight-inch mill work; immediate delivery.

Shear.—Clarence Cosby, Richmond, Va., wants second-hand alligator shear capable of cutting cold four-inch rounds; blade not less than 30 inches long.

Shear.—Southern States Steel Co., 1411 Praetorian Bldg., Dallas, Tex., wants prices on shear to cut bars up to 1½-inch squares.

Spike Machinery.—Foxworth-Galbraith Company, Dalhart, Tex., wants names of manufacturers of railway-spike machines.

Spikes.—See "Contractors' Supplies."

Structural Steel.—See "Electrical Railway Equipment."

Steel Foundries.—Wm. J. Oliver Manufacturing Co., Knoxville, Tenn., wants to correspond with operators of steel foundries making reasonable deliveries.

Telephone Equipment.—Hephzibah Telephone Co., E. C. Morris, president, Hephzibah, Ga., wants telephone equipment; 25-mile line and 120 telephones.

Underwear Machinery.—J. D. Gilreath, Greenville, S. C., wants to correspond with manufacturers of underwear machinery.

Tank.—Graham Construction Co., Graham, Va., wants prices on metal water tank (no tower); 20,000 gallons capacity.

Tiles.—Joughlin Bros., 1502 Franklin St., Tampa, Fla., wants to represent manufacturers of tiles.

Umbrella Machinery and Supplies, etc.—Taylor Manufacturing Co., W. H. Taylor, president, 32½ Peachtree St., Atlanta, Ga., wants prices on machinery for manufacture of umbrellas, canes and parasols.

Washing Machinery.—J. H. Smalling, Johnson City, Tenn., wants catalogues and prices on sand washer.

Water Cooler.—Richard S. West, Lockland Water Co., 1808 Chadwell Ave., Nashville, Tenn., wants prices on water cooler.

Water-supply System.—Sealed proposals will be received until May 5, and then opened, by Board of Mayor and Aldermen, Johnson City, Tenn., for construction of water-supply system; separate bids as follows: (1) About 12 miles 18-inch gravity main, including specials, in place, complete; separate bids for material delivered on the trench, and for labor of trenching, laying and back-filling requested; if more than one kind of pipe is selected, not less than three miles of any certain kind will be contracted for, and that in continuous section if practicable; (2) street mains, 6, 8, 10 and 12-inch, in all about five miles, valves, fire hydrants and connections, to supplement present system, as enumerated in specifications; (3) 5,000,000-gallon reservoir, lined and covered with reinforced concrete. Forms for proposals and specifications obtainable from W. M. Dunlap, city engineer, on and after April 15; maps and profiles to be seen only at engineer's office; or on deposit of \$2 a general reference map will be mailed to prospective bidders, amount to be refunded to such depositors as bid; all proposals on regular forms; certified check equal to 5 per cent. of bid; bond of \$25 per cent. of amount of contract required of successful bidders; board reserves right to reject any and all bids; bids to be addressed to W. M. Dunlap, city engineer and commissioner.

Water Glass.—John G. Duncan Company, 308 West Jackson Ave., Knoxville, Tenn., wants addresses of manufacturers of water glass 9x10 inches long, about ¾-inch thick, 1½ inches wide, used on railroad locomotives.

Well-drilling Machinery.—American Agricultural Co., 900 La Salle Bldg., St. Louis, Mo., wants prices on drilling machinery.

Well-drilling.—Office of Constructing Quartermaster, George Vidmer, Captain Eleventh Cavalry, Fort Oglethorpe, Ga.; sealed proposals in triplicate will be received until April 14 for sinking two eight-inch-deep wells; full information, necessary blank forms, etc.,

will be furnished on application to Captain Vidmer.

Wire.—See "Electrical Railway Equipment."

Woodworking Machinery.—See "Floor Scaffolding."

INDUSTRIAL NEWS OF INTEREST

Contract for Electrical Equipment.

The Carolina Electrical Co. of Raleigh, N. C., has received contract for the electrical equipment of the municipal building to be erected for the city of Raleigh.

Installing Automatic Equipment.

For the purpose of removing its overburden the Mutual Mining Co., Dutton, Fla., is having installed automatic scraping and dumping equipment. This installation is being made by the Burkett-James Construction Co., Macon, Ga., manufacturer of well-known automatic scraping and dumping machines.

Erecting Office Building.

Plans have been prepared and construction is in progress on a two-story office building for the Cincinnati Equipment Co. of Cincinnati. This company is well known as an equipment supply firm, and handles steam shovels, locomotives of various kinds, cars and other equipment.

An Auction of Machinery, Etc.

On April 14 J. E. Conant & Co., auctioneers, Lowell, Mass., will offer for sale in lots to suit purchasers, a quantity of machinery and other mechanical equipment, yarns, etc., comprising the plant of the Somerville (N. J.) Manufacturing Co. The sale will be held at Somerville. The auctioneers can furnish an illustrated and descriptive catalogue.

Adding New Equipment.

In order to meet the demand for its products, the Northern Engineering Works, manufacturer of cranes, hoists, etc., has found it necessary to increase its facilities by the installation of new tools and machinery, consisting of lathes, gear cutters and milling machines. This company reports a good volume of trade, the demand for its standard electric traveling crane being unusually good.

The J. B. McCrary Co., Inc.

Succeeding J. B. McCrary & Co., the J. B. McCrary Company, Inc., has recently organized, with offices at 1301-23 Empire Building, Atlanta. This company will act in the capacity of consulting and supervising engineer for designing and installing water, light and sewer systems, and will make a specialty of preliminary estimates, plans and specifications.

Seeking a Manufacturing Location.

An established manufacturing enterprise, with an annual payroll of from \$40,000 to \$60,000, states its desire to remove to another location, and invites inducements. It is understood that a proposition involving free site and underwriting a stock issue of \$50,000 is required. Commercial organizations or others interested are invited to address No. 586, care of Manufacturers' Record.

Secures Large Contract.

It is announced that Lane Brothers Company of Altavista, Va., in competition with five other bidders, has secured a contract from the State government of New York for the construction of two and one-half miles of the Erie Canal, to cost about \$1,325,000. The work, it is said, includes much heavy excavation, the greater portion of which will be done with steam shovels, and a large amount of masonry. It is to be completed in three years.

Cincinnati Sheet Metal & Roofing Co.

Announcement is made of the organization of the Cincinnati Sheet Metal & Roofing Co., which has a capital stock of \$50,000 and principal offices at 38 and 40 Main St., Cincinnati, O. This company will engage in general sheet-metal work and roofing—both metal and prepared. Its officers are: President, E. G. Rider; vice-president, Brandon R. Milliken; secretary-treasurer, Harry L. Olden.

News of Republic Company.

The Republic Iron & Steel Co., Frick Bldg. Annex, Pittsburgh, announces that W. A. Green has been appointed manager of its Southern district, with headquarters at Birmingham, Ala. The position of treasurer and auditor, Southern district, is abolished. Mr. Green will have full charge of all business of the company in the Southern district,

and the local officials there will be responsible directly to him for the operations of their respective departments.

Coppered Wire and Coated Nails.

The Youngstown Sheet & Tube Co., Youngstown, O., announces that on April 1 it began making deliveries of coppered wire in gauges No. 12 and coarser. This wire will be furnished in exact weight coils of 100 pounds papered. The company also announces that it will receive orders from jobbers for standard coated nails, its purpose being to market this product exclusively through jobbers. Among the products of the Youngstown Sheet & Tube Co. are wire rods, wire, barbed-wire specialties, nails, pipe, sheets, etc.

Increasing Its Facilities.

For the purpose of increasing its facilities, which is made necessary by its growing trade, the Consolidated Tramway Co., Roanoke, Va., has purchased a site and will erect a new plant, including a two-story brick structure and a shop building. The plant will be located west of Roanoke, on the Roanoke River, and will be easily accessible to the Norfolk & Western and Virginian railroads. The main structure will be 150x40 feet, with two Ls, each 110x40 feet, and equipped for the manufacture of tramway cars and other equipment.

Hughes Well-Drilling Contracts.

Contract has been awarded for boring a number of test surface wells to obtain soft water for the New York Laundry Co. of Jacksonville, Fla. If these wells do not develop sufficient water they will be supplemented by a deep well. The contract has been awarded to the Hughes Specialty Well Drilling Co. of 96 Ashley Ave., Charleston, S. C. In referring to this company recently as completing a contract at Jacksonville, Fla., it was stated that the 10x14-inch 980-foot well yields 500,000 gallons of water every day. This was an error, as the well delivers 1,500,000 gallons daily.

John A. Stewart Electric Co.

It is announced that the John A. Stewart Electric Co. of Cincinnati has acquired about five acres of land on Eastern avenue, at Red Bank, Cincinnati, and will erect extensive storage and warehouse facilities. The property is located on the Pennsylvania Railroad, and it is stated that the main building will be of brick and steel, 60x150 feet, with a switch extending to the railroad. This company handles engines, boilers, generators, motors and other equipment, and removes machinery from electric lighting and street railway plants on account of changing conditions.

Reno-Kaetker Electric Co.

F. P. Colville, sales manager of the Reno-Kaetker Electric Co., announces that his company has organized, taken over the business of the Reliance Electric & Manufacturing Co. and moved the offices and shops to 610-616 Baymiller St., Cincinnati, O. This new company will continue the manufacture of the Reliance electric elevator controllers and the Reliance motor-driven swing saws, and expects soon to introduce the Reno direct and alternating current motors in the smaller sizes. Besides Mr. Colville, the officers of the company are Charles Stowe Reno, president and engineer, and Henry Kaetker, treasurer and manager.

30,000 Acres for Sale.

An opportunity to purchase mountain, valley, mineral, timber, agricultural and fruit-growing lands, etc., is presented in the announcement offering for sale 30,000 acres in Virginia. This property is known as the Glenwood estate, and is located on the James River, Chesapeake & Ohio and Norfolk & Western railroads, and contains water-powers, attractive scenery, healthful climate, and offers attractive sites for homes. It affords varying elevations from 750 to 4200 feet above sea level, and particulars regarding it may be obtained from William A. Anderson, executor of Francis T. Anderson, deceased, Mutual Bldg., Richmond, Va.

Leaves Westinghouse Company.

Announcement is made that Walter M. McFarland, who has been associated with the Westinghouse Electric & Manufacturing Co.,

Pittsburg, Pa., since January 1, 1899, has resigned to accept an official position with the Babcock & Wilcox Company of New York. Mr. McFarland, in his capacity as acting vice-president of the Westinghouse Electric & Manufacturing Co. for a period of more than 10 years, has had official supervision of the large contracts of the company and has acted in an advisory capacity in all the co-operative movements of the company with the associated Westinghouse companies involving literature, advertising and exhibition work. He is vice-president of the Society of Naval Architects and Marine Engineers, and his experience should make him a valuable acquisition to the Babcock & Wilcox Company. He will be located at the general offices of this company in the Singer Bldg., New York.

The "Des Moines Elaterite" Products

The electrolytic corrosion of structural steel and its prevention have been the subjects of exhaustive tests by the U. S. Department of Agriculture. The tests covered the commonly-used paint pigments, and demonstrate that many of these are positive stimulators of electrolytic corrosion. The conclusion reached is that "good conductors of electricity should never be applied directly to the surface of iron or steel," and that an insulating pigment should always be applied upon such surfaces if the destructive effects of electrolysis are to be avoided. Among the best insulating pigments is elaterite or "mineral rubber," the pigment of "Des Moines Elaterite" paints and water-proofings. It has the properties of vegetable rubber, including insulating, waterproof, and to a remarkable degree the elastic properties. In recent tests tissue paper coated with "Des Moines Elaterite" and placed between the ends of wires carrying more than 1000 volts of electricity completely stopped the current. In competition with 15 other paints "Des Moines Elaterite" was selected for use on the steel transmission towers which carry light and power from Niagara Falls all over Ontario. Besides its superior insulating properties, "Des Moines Elaterite" is peculiarly fitted for preservative and waterproofing uses, because of its extreme resistance to all acids, its intensely adhesive property and its absolute waterproof character. The waterproofing also has the most desirable bonding quality, which permits application of plaster coats directly over it without use of lath or furring, and giving both a permanent bonding for plaster and a permanent waterproof protection. The bonding strength was shown in recent tests made by a leading architect of Houston to equal 100 pounds per square inch, that amount of pull being required to separate cement briquets between which the waterproofing and bonding had been applied. The manufacturer of "Des Moines Elaterite" paints and water-proofings is the Elaterite Paint & Manufacturing Co. of Des Moines, Iowa, which has issued an illustrated booklet, "The History of Elaterite," giving detailed information concerning the products and their uses.

TRADE LITERATURE.

"Alabama" Corrugated Rim Ventilator.

The Decatur Cornice & Roofing Co., New Decatur, Ala., is distributing an illustrated leaflet which describes its "Alabama" corrugated-rim ventilator, with automatic closing sliding glass damper. This is a combination skylight and ventilator that is efficient, weatherproof and fireproof. It has been adopted by two of the largest Southern railway systems and has received the approval of the U. S. Government by using, being used on a number of buildings at Fort Barranca, Florida. Architects and contractors are invited to investigate.

Burriss Metal Shingles.

A shingle claimed to combine all the qualities required to make a water-tight and serviceable roof is the Burriss metal shingle. It is stated that this product not only makes a water-tight and durable roof, but gives the roof a tile effect and adds greatly to its appearance. In its manufacture the contraction and expansion from heat, cold and green lumber have been considered, and it is claimed that it is not affected in the least from these causes. These shingles are manufactured by John T. Burriss & Son, Anderson, S. C., and are illustrated and described in a catalogue which the company has issued.

Corrugated Bars and Related Products

In the development of reinforced concrete construction it was found that there were limits beyond which a light reinforcement could not be used, and to meet this condition it is claimed that the first corrugated bar

was employed. Among the companies which have engaged exclusively in the development of this device is the Corrugated Bar Co., 108-20 Bank of Commerce Building, St. Louis, which has given this product special attention for many years. Beginning with expanded metal, it developed efficient and economical systems of construction for short spans and erected with its own forces a number of the first fireproof buildings in the United States. It was early recognized that bar steel as furnished for ordinary commercial purposes was in many ways unsuited for work of this character, and since then the company has endeavored to produce a bar reinforcement with a positive mechanical bond which would enable engineers to be certain that the conditions assumed in their designs existed in the finished structure. This company manufactures square and round corrugated bars, plain bars, etc., and can furnish upon special order corrugated square bars made from rail carbon steel, as well as cold twisted bars and other products. It has issued an attractive booklet illustrating and describing them and presenting some pleasing views of various classes of structures in which its bars have been used. The booklet is durably bound, and its pages show an attractive border effect in gilt.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters. Items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., April 6.

The Baltimore stock market was generally quiet to dull during the past week. In the trading United Railways common sold from 13 1/4 to 13; do. trust certificates, 13 1/4 to 12 3/4, with last sale at 13 1/4; do. incomes, 60 1/2 to 59 3/4, reacting to 60 3/4, with last sale at 60 1/2; do. funding 5s, 82 to 83; do. 4s, 86 1/4 to 86 1/2; Consolidated Gas, Electric Light & Power preferred, 85 3/4 to 85; do. 4 1/2s, 82; Consolidated Gas 5s, 109 to 108; do. 4 1/2s, 93; Seaboard Company first preferred, 76; Seaboard 4s, stamped, 84 1/2 to 85 1/4; do. three-year 5s, 99 1/2 to 99 3/4; do. 10-year 5s, 100; do. adjustment 5s, 71; Mt. Vernon-Woodberry Cotton Duck 5s, 67 1/4 to 67 1/2, with last sale at 67 1/4; G. B. S. Brewing 1sts, 42 to 41 1/2.

Bank stock sold as follows: Citizens', 38 1/2; Maryland, 23 1/4; Bank of Baltimore, 121; Merchants', 178; Mechanics', 28.

Mercantile Trust sold at 141; United States Fidelity & Guaranty, 141 to 140; Baltimore Trust, 167 1/2 to 167; Fidelity & Deposit, 150; Maryland Casualty, 90 1/2.

Other securities were traded in thus: Georgia, Carolina & Northern 5s, 105 to 105 1/4; Georgia Southern & Florida first preferred, 96; Atlantic Coast Line convertible debenture 4s, 100 1/4 to 100 3/4; do. Connecticut 5-20s, 91; do. consolidated 4s, 94 1/4 to 95 1/4; Atlantic Coast Line of Connecticut stock, 245; Georgia & Alabama Consolidated 5s, 104 1/2; Macon Railway & Light 5s, 95 1/2; Northern Central Railway stock, 129; Baltimore City 3 1/2s, 1980, 92 1/4; do. do. 1930, 96 1/4; do. 5s, 1916, W. L., 105 1/4; Georgia Southern & Florida 5s, 108 1/4 to 108; Maryland & Pennsylvania incomes, 61; Consolidation Coal refunding 4 1/2s, 95 1/4; Carolina Central 4s, 92 1/2; Maryland Electric 5s, 98 1/4 to 97 3/4, with last sale at 97 3/4; Charleston Consolidated Electric 5s, 94 to 96; Consolidation Coal, 112 to 111; Florida Southern 4s, 91 1/2 to 92 1/2; Fairmont & Clarksburg 5s, 95 1/2; Knoxville Traction 5s, 104; Richmond Traction 5s, 105; Baltimore, Sparrows Point & Chesapeake 4 1/2s, 92; Henry E. Cook Mill Co., 1; Richmond & Petersburg 1st 5s, 106 1/2; Baltimore City Passenger 5s, 100 1/4; George's Creek Coal & Iron, 114; Norfolk & Carolina 1st 5s, 111 1/4; Norfolk Railway & Light 5s, 99 1/4 to 99; Belvedere Hotel (Baltimore) 1st 5s, 100 1/4; Coal & Iron Railway 5s, 101 1/4; Milwaukee Electric Railway & Light 4 1/2s, 94; Memphis Street Railway 5s, 99; West Virginia Central 6s, 101 1/4.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended April 6, 1910.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast.....	100	130 1/2	
Atlantic Coast of Conn.....	100	240	250
Georgia Sou. & Fla.....	100	30	40

Georgia Sou. & Fla. 1st Pfd.....	100	96 1/2	
Georgia Sou. & Fla. 2d Pfd.....	100	79	
Seaboard Company Common.....	100	22 1/2	24 1/2
Seaboard Company 1st Pfd.....	100	80	
Seaboard Company 2d Pfd.....	100	45	
United Railways & Elec. Co.....	50	13	13 1/2
Western Maryland.....	100	50	

Bank Stocks.			
Citizens' National Bank.....	10	29	
Drovers & Mech. Nat. Bank.....	100	223	
First National Bank.....	100	131	137
Maryland National Bank.....	100	30	32 1/4
Merchants' National Bank.....	100	178	178 1/2
National Bank of Baltimore.....	100	121	123
National Exchange Bank.....	100	155	
National Marine Bank.....	30	42	
National Mechanics' Bank.....	10	28	
National Union Bank of Md.....	100	120	

Trust, Fidelity and Casualty Stocks.			
Baltimore Trust.....	100	167	167 1/4
Colonial Trust.....	50	27	
Continental Trust.....	100	203	210
Fidelity & Deposit.....	50	150	152
Maryland Casualty.....	25	80	
Mercantile Trust & Deposit.....	50	140	142 1/2

Miscellaneous Stocks.			
Ala. Con. Coal & Iron.....	100	30	
Ala. Con. Coal & Iron Pfd.....	100	80	
Con. Cotton Duck Common.....	50	4	5
Con. Gas, Elec. Lt. & P. Com.....	100	46	48
Con. Gas, Elec. Lt. & P. Pfd.....	100	82	83 1/2
Consolidation Coal.....	100	111	111 1/2
G. B. S. Brewing Co.....	100	114	116
Georges Creek Coal.....	100	114	116

Railroad Bonds.			
Alabama Midland 5s.....	100	108 1/2	
Atlantic Coast Line 1st 4s, 1952.....	95	95 1/2	
Atlan. Coast Line Conv. Deben. 4s, 1901.....	100	91	
At. Coast Line Com. 4s, C. Trs., 5-20s.....	100	91	
Atlan. Coast Line (Conn.) 5s, C. Trs.....	100	105	
Balto. & Harrisburg 5s, 1935.....	100	105	
Balto. & Harrisburg Ext. 5s, 1935.....	100	104	
Carolina Central 4s, 1949.....	100	92 1/2	93
Coal & Iron Railway 5s, 1920.....	100	101 1/2	102
Col. & Green. 1st 6s, 1916.....	100	107	108
Florida Southern 4s, 1940.....	100	91 1/2	92 1/2
Georgia & Alabama 5s, 1943.....	100	104 1/2	104 1/2
Georgia, Car. & North. 1st 5s, 1929.....	100	105	105 1/2
Georgia Pacific 1st 6s, 1922.....	100	112	113 1/2
Georgia South. & Fla. 1st 5s, 1945.....	100	107 1/2	108 1/2
Petersburg Class A 5s, 1926.....	100	108 1/2	
Petersburg Class B 5s, 1926.....	100	117	118 1/2
Potomac Valley 1st 5s, 1941.....	100	105	
Richmond & Dan. Gold 6s, 1915.....	100	104 1/2	107 1/4
Richmond & Danville Deb. 5s.....	100	103 1/2	105 1/2
Savannah, Fla. & West. 6s.....	100	123 1/2	126
Seaboard 4s, Stamped.....	84	84 1/4	
Seaboard Air Line 5s, 10-year, 1911.....	100	100 1/4	
Seaboard Air Line 5s, 3-year.....	100	92 1/2	93 1/2
Seaboard Adjustment 5s.....	100	96 1/2	
Seaboard & Roanoke 5s, 1926.....	100	106	106 1/2
South Bound 5s, 1941.....	100	105	105 1/2
Virginia Midland 2d 6s, 1911.....	100	101	
Virginia Midland 4th, 1921.....	100	104 1/2	
Virginia Midland 5th 5s, 1926.....	100	104 1/2	
Western N. C. Con. 6s, 1914.....	100	105	108 1/2
West Va. Cent. 1st 6s, 1911.....	100	101	101 1/4
W. L., Col. & Aug. 6s, 1910.....	100	100	100 1/2

Street Railway Bonds.			
Augusta Ry. & Elec. 5s, 1940.....	100	101 1/2	
Balto. City Pass. 5s, 1911.....	100	100 1/4	
Balto., Sp. Pt. & C. 4 1/2s.....	100	92 1/2	92 1/2
Charleston Con. Electric 5s, 1926.....	100	95 1/4	
City & Suburban 5s (Balt.), 1925.....	100	107 1/2	
City & Suburban 5s (Wash.), 1948.....	100	102	104
Fairmont & Clarksburg Trac. 5s.....	100	95 1/2	96
Knoxville Traction 1st 5s, 1928.....	100	104	105
Lexington Railway 1st 5s, 1949.....	100	91 1/2	
Macon Ry. & Lt. 1st Con. 5s, 1953.....	100	95 1/2	96
Maryland Electric Railway 5s.....	97 1/2	98	
Memphis Street Railway 5s.....	99	99 1/4	
Metropolitan 5s (Wash.), 1925.....	100	107 1/2	
Newport News & Old Pt. 5s, 1938.....	100	96	
Norfolk & Portsmouth Trac. 5s.....	100	83	
Norfolk Railway & Light 5s.....	100	92 1/2	
Richmond Traction 5s.....	100	105	
United Railways 1st 4s, 1949.....	80 1/2	86 1/2	
United Railways Inc. 4s, 1949.....	60 1/2	60 1/2	
United Railways Pdg. 5s.....	82	82 1/2	

Miscellaneous Bonds.			
Atlanta Gas 1st 5s, 1947.....	100	102	
Consolidated Gas 6s, 1910.....	100 1/4	100 1/4	
Consolidated Gas 5s, 1939.....	108	108	
Consolidated Gas 4 1/2s.....	94	97	
Consolidated Coal Refdg. 4 1/2s.....	95 1/2	96	
Con. Gas, Elec. Lt. & P. 4 1/2s.....	82	82	
G. B. S. Brewing 1st 4s.....	41 1/4	41 1/4	
G. B. S. Brewing Inc. 4s.....	10	11	
Maryland Steel Co. 5s.....	103	103	
Maryland Telephone 5s.....	99 1/4	99 1/4	
Mt. Vernon-Woodby Cot. Duck 5s.....	67 1/4	67 1/4	
United Elec. Lt. & P. 4 1/2s.....	90	90	

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending April 4.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	70	71
Alken Mfg. Co. (S. C.).....	90	
American Spinning Co. (S. C.).....	100	
Anderson Cotton Mills (S. C.).....	50	56
Arcadia Mills (S. C.).....	97	
Arkwright Cotton Mills (S. C.).....	100	105
Augusta Factory (Ga.).....	100	106
Avondale Mills (Ala.).....	116	
Belton Mills (S. C.).....	125	
Brandon Mills (S. C.).....	90	102
Brogan Mills (S. C.).....	24	
Cannon Mfg. Co. (N. C.).....	135	
Cabarrus Cotton Mills (N. C.).....	130	135
Chadwick Mfg. Co. (N. C.) Pfd.....	100	
Chiquola Mfg. Co. (S. C.).....	175	182
Clifton Mfg. Co. (S. C.).....	102	106
Clinton Cotton Mills (S. C.).....	118	125
Columbus Mfg. Co. (Ga.).....	98	
Courtney Mfg. Co. (S. C.).....	98	100
Dallas Mfg. Co. (Ala.).....	99	
Darlington Mfg. Co. (S. C.).....	78	85
D. E. Converse Co. (S. C.).....	100	
Drayton Mills (S. C.).....	95	100
Eagle & Phenix Mills (Ga.).....	117	
Easley Cotton Mills (S. C.).....	165	175
Enoree Mfg. Co. (S. C.).....	50	60
Enoree Mfg. Co. (S. C.) Pfd.....	95	100
Enterprise Mfg. Co. (Ga.).....	80	85
Exposition Cotton Mills (Ga.).....	200	
Gaffney Mfg. Co. (S. C.).....	82	85
Gainesville Cotton Mills (Ga.).....	75	80
Glenwood Cotton Mills (S. C.).....	150	
Gluck Mills (S. C.).....	98	101
Granby Cot. Mills (S. C.) 1st Pfd.....	35	45
Greenville Mfg. Co. (S. C.).....	160	165
Greenwood Cotton Mills (S. C.).....	58	61
Grendel Mills (S. C.).....	112	115
Hartsville Cotton Mill (S. C.).....	170	

Henrietta Mills (N. C.).....	160	175
Inman Mills (S. C.).....	108	108
King Mfg. Co. J. P. (Ga.).....	90	93
Lancaster Cotton Mills (S. C.).....	130	
Lancaster Cot. Mills (S. C.) Pfd.....	97	100
Langley Mfg. Co. (S. C.).....	120	127
Laurens Mills (S. C.).....	127	
Limestone Mills (S. C.).....	160	170
Lockhart Mills (S. C.).....	78	85
Lockhart Mills (S. C.) Pfd.....	99	100
Loray Cotton Mills (N. C.) Pfd.....	95	97 1/2
Marlboro Cotton Mills (S. C.).....	80	85
Mills Mfg. Co. (S. C.).....	102	
Molloy Mfg. Co. (S. C.).....	105	110
Monaghan Mills (S. C.).....	152	
Monarch Cotton Mills (S. C.).....	105	107
Newberry Cotton Mills (S. C.).....	125	140
Ninety-six Cotton Mills (S. C.).....	140	150
Norris Cotton Mills (S. C.).....	125	130
Olympia Cotton Mills (S. C.).....	90	
Orr Cotton Mills (S. C.).....	108	109
Pacolet Mfg. Co. (S. C.).....	101	
Pacolet Mfg. Co. (S. C.) Pfd.....	99	102
Pelzer Mfg. Co. (S. C.).....	150	160
Piedmont Mfg. Co. (S. C.).....	175	177
Poe Mfg. Co. F. W. (S. C.).....	170	180
Saxon Mills (S. C.).....	127	
Sibley Mfg. Co. (Ga.).....	71	72
Spartan Mills (S. C.).....	130	140
Trion Mfg. Co. (Ga.).....	290	
Tucapau Mills (S. C.).....	250	
Union-Buffalo (S. C.) 1st Pfd.....	74	80
Union-Buffalo (S. C.) 2d Pfd.....	20	25
Victor Mfg. Co. (S. C.).....	154	160
Warren Mfg. Co. (S. C.).....	107	
Warren Mfg. Co. (S. C.) Pfd.....	100	110
Washington Mills (Va.).....	28	
Washington Mills (Va.) Pfd.....	108	110
Whitney Mfg. Co. (S. C.).....	125	
Wicasset Mills (N. C.).....	135	
Woodruff Cotton Mills (S. C.).....	95	103
Woodside Cotton Mills (S. C.).....	90	95
Williamson Mills (S. C.).....	118	125

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending April 4.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	70	71
Alken Mfg. Co. (S. C.).....	90	
American Spinning Co. (S. C.).....	100	
Anderson Cotton Mills (S. C.).....	50	56
Arkwright Mills (S. C.).....	100	103
Augusta Factory (Ga.).....	100	106
Avondale Mills (Ala.).....	120	125
Belton Mills (S. C.).....	125	
Bibb Mfg. Co. (Ga.).....	114	
Brandon Mills (S. C.).....	90	102
Cabarrus Cotton Mills (N. C.).....	125	140
Chadwick-Hoskins Mfg. Co. (N. C.).....	100	
Chadwick-Hoskins Mfg. Co. (N. C.) Pfd.....	101	
Chiquola Mfg. Co. (S. C.).....	170	185
Clifton Mfg. Co. (S. C.).....	101	
Clifton Mfg. Co. (S. C.) Pfd.....	101	
Clinton Cotton Mills (S. C.).....	120	130
Columbus Mfg. Co. (Ga.).....	98	
Courtney Mfg. Co. (S. C.).....	90	95
Dallas Mfg. Co. (Ala.).....	110	
Darlington Mfg. Co. (S. C.).....	80	88
Drayton Mfg. Co. (Ala.).....	100	
Eagle & Phenix Mills (Ga.).....	125	
Enoree Cotton Mills (S. C.).....	170	174
Enoree Mfg. Co. (S. C.).....	55	60
Enoree Mfg. Co. (S. C.) Pfd.....	95	100
Enterprise Mfg. Co. (Ga.).....	80	85
Exposition Cotton Mills (Ga.).....	195	200
Gaffney Mfg. Co. (S. C.).....	80	82
Gainesville Cotton Mills (Ga.).....	75	80
Granby Cot. Mills (S. C.) 1st Pfd.....	35	45
Granville Mfg. Co. (S. C.).....	160	165
Greenwood Cotton Mills (S. C.).....	58	61
Grendel Mills (S. C.).....	112	115
Henrietta Mills (N. C.).....	160	175
King Mfg. Co. John P. (Ga.).....	88	90
Lancaster Cotton Mills (S. C.).....	130	
Lancaster Cot. Mills (S. C.) Pfd.....	97	101
Langley Mfg. Co. (S. C.).....	120	128
Laurens Cotton Mills (S. C.).....	130	
Limestone Mills (S. C.).....	150	170
Lockhart Mills (S. C.).....	78	80
Lockhart Mills (S. C.) Pfd.....	99	100
Loray Mills (N. C.) Pfd.....	95	97 1/2
Marlboro Cotton Mills (S. C.).....	80	82
Mayo Mills (N. C.).....	165	186
Mills Mfg. Co. (S. C.).....	100	
Mills Mfg. Co. (S. C.) Pfd.....	101	
Monaghan Mills (S. C.).....	154	161
Monarch Cotton Mills (S. C.).....	102	107
Newberry Cotton Mills (S. C.).....	125	140
Norris Cotton Mills (S. C.).....	130	
Olympia Cot. Mills (S. C.) Pfd.....	90	
Orangeburg Mfg. Co. (S. C.) 1st Pfd.....	80	91

born, president; Wm. C. Stubbs, vice-president; Alfred Wellborn, treasurer and Frederick W. Sinclair, secretary, and Marshall J. Wellborn. Business began April 1. The company succeeds to the insurance agency of Wellborn Bros.

La., Opelousas.—A bank and trust company capitalized at \$100,000 is reported being organized by W. J. Sandoz and Yves Andre-pont.

Md., Hampstead.—The First National Bank is reported to have elected officers thus: Dr. E. M. Bush, president; William A. Abbott, vice-president, and Daniel Shamberger, cashier.

Md., Silver Spring.—The Silver Spring National Bank, capital \$25,000, is reported to have elected directors thus: Ashley M. Gould, J. Herbert Cissel, S. R. Waters, G. O. B. Cissel, Dr. William T. Brown, Arthur W. Stonestreet, Harry Hoskinson, Mark Stearman, Frank L. Hewitt, Charles W. Fairfax, Howard Marlowe, Benton G. Ray and W. W. Jordan.

Miss., Corinth.—The Citizens' National Bank of Corinth, Miss., has been approved; capital \$50,000; organizers, John F. Osborne, J. D. Biggers, R. C. Cates, W. J. Cooper and Willis Hensley.

Miss., Merigold.—Official: The Bank of Merigold chartered; capital \$10,000; incorporators, W. B. Parks, J. R. Smith and F. E. Jones. Business is to begin in about 60 days.

Miss., Poplarville.—The Bank of Poplarville has elected directors thus: N. Batson, president; J. O. Bilbo and M. G. Blackwell, vice-presidents; J. J. Scarborough, Jr., cashier; W. C. Welch, assistant cashier; D. P. Davis, W. W. Mitchell, R. L. Stevenson, E. O. Batson, H. E. Allen, G. W. Amick, M. N. McCoy, T. R. White, G. I. Rouse, M. D. Tate, F. W. Pettibone. This is said to be a conversion of the National Bank of Poplarville.

Mo., Altenburg.—The Bank of Altenburg, capital \$10,000, is reported chartered by Fred Koesterling, John A. Weber, Herman J. Lembach and Thomas L. Phillips.

Mo., Mercer.—The Bank of Mercer is reported chartered; capital \$20,000; incorporators, W. F. Pickett, S. H. Cox, C. B. Robinson and J. F. Owen.

N. C., Caroleen.—Official: The Caroleen Savings Bank is reported chartered with \$10,000 capital; G. W. Hawkins, president; J. A. Micheal, vice-president, and J. H. Thomas, cashier.

N. C., Greensboro.—The Guilford Abstract & Title Co., authorized capital \$15,000, is reported chartered by P. W. Harrison, Edmund Harrison, Sr., and Edmund Harrison, Jr.

N. C., Weaverville.—The Farmers and Treasurers' Bank is reported chartered with \$25,000 capital. Among the stockholders are J. H. Carter and J. S. Coleman of Asheville.

Okla., Muskogee.—Official: The American National Bank chartered; capital \$150,000; Geo. B. Frazier, president; Edgar John, R. B. Beard and G. A. Murphy, vice-presidents; Willard John, cashier, and John West, Jr., assistant cashier.

Okla., Oklahoma City.—Official: The Mutual Savings & Home Co. incorporated; capital \$100,000. Directors and incorporators: A. B. Pyle, vice-president, Guthrie, Okla.; Alexander Richmond, secretary and treasurer, Muskogee, Okla.; Jas. S. Watson, attorney and counselor; G. B. Mick and H. B. Drake of Oklahoma City. Business is to begin at once. The president has not yet been appointed.

Okla., Oklahoma City.—The Jefferson Life Insurance Co. of Oklahoma is reported to have organized with officers thus: President, T. J. McComb; vice-presidents, George G. Sohler, O. D. Haisell and J. O. Mattison; secretary, H. O. Stark; treasurer, J. L. Wilkin; medical director, Dr. J. W. McComb; counsel, J. H. Everest.

Okla., Sapulpa.—The Sapulpa State Bank, capital \$60,000, has been organized with directors thus: H. A. McCauley, H. F. Mitchell, I. K. Perry, Lefe Speer and John G. Ellighausen.

Okla., Waynoka.—Official: The First National Bank of Waynoka chartered; capital \$25,000. Business began March 30 with directors thus: J. A. Stine, L. L. Stine, G. E. Nickel, W. H. Olmsted and R. W. Waldley. The new bank succeeds the Waynoka State Bank.

S. C., Cowpens.—The Cowpens Building and Loan Association, capital \$60,000 to \$500,000, is reported chartered; W. M. Webster, president; J. W. Brown, vice-president, and W. Y. Wilkins, secretary and treasurer.

S. C., Hartsville.—The Farmers and Merchants' Bank, capital \$25,000, is reported incorporated by H. J. Nettles, J. L. Powe, C. C. Best and C. McDonald.

S. C., Newberry.—J. D. Davenport is reported organizing a new bank with \$50,000 capital.

S. C., Neeses.—The Bank of Neeses is reported to have been granted a commission capital \$10,000; incorporators, H. L. J. Blume, T. J. Bolin and B. A. Hughes.

S. C., Orangeburg.—The Farmers' Union Trust Bank of Orangeburg County, capital \$25,000, is reported organized with directors thus: W. S. Barton, Jr., president; R. E. Wannamaker, vice-president; J. H. Claffy, cashier; T. R. McCants, T. W. Zeigler, E. L. Culler, L. A. Carson, A. J. Hydrick, Jr., and D. C. Hayden.

S. C., Springfield.—The People's Bank of Springfield is reported to have been granted a commission; capital \$15,000; petitioners, H. P. Fulmer, L. B. Fulmer, L. T. Fulmer and H. B. Fulmer.

Tenn., Whiteville.—Official: The People's Bank chartered; capital \$40,000; surplus \$20,000; S. N. Duncan, president; Festus Rhodes, cashier; directors, S. N. Duncan, S. B. Goodlay, Park Ferris, Lee Morrison, Pink Penney and J. B. Whitley. Business is to begin about May 1.

Tex., Dorchester.—The First State Bank is reported chartered with \$10,000 capital by C. B. Dorchester, P. R. Markham, T. U. Cole and others.

Tex., El Paso.—The El Paso Bank & Trust Co. is reported incorporated with \$100,000 capital by R. M. Turner, A. F. Kerr, A. S. Goodell and others.

Tex., Georgetown.—The Georgetown Building and Loan Association is reported incorporated by C. S. Belford, C. G. Griffith, W. L. Price and others.

Tex., Glen Rose.—Official: The Farmers and Merchants' State Bank chartered; capital \$10,000; incorporators, John C. Lees, W. L. Bryant, R. I. Gresham, John Shields and others. Business began April 5.

Tex., Houston.—Official: The Union National Bank of Houston began business March 28 with \$1,000,000 capital and \$300,000 surplus. J. S. Rice is president.

Tex., Houston.—S. O. Cotton & Bro. write: "The press report that we had incorporated for banking purposes was an error."

Tex., Jewett.—Official: The Jewett State Bank chartered; capital \$15,000. Directors: O. Wiley, Jr., president; B. D. Dashiell and R. L. Wiley, vice-presidents; W. A. Dezalle, cashier, and G. H. Albers. Business is to begin April 4.

Tex., Loving.—The Loving State Bank, capital \$10,000, is reported to have been granted a charter; incorporators, W. A. Shown, J. J. Dickson and J. T. Marshall.

Tex., Olney.—The First Guaranty State Bank, capital \$10,000, is reported chartered by D. D. Tandy, F. A. Tandy, P. H. Douglas and others.

Tex., Penelope.—The First State Bank of Penelope, recently incorporated with \$15,000 capital, has elected directors thus: J. A. Sullivan, president; J. A. Ferguson, vice-president, and H. Creswell, cashier; J. A. Drozd, H. Plunkett, Dr. W. M. Jenkins and R. H. Etheridge.

Tex., Petrolia.—The First State Guaranty Bank is reported organized with J. C. Wolf president, Herbert Spain cashier, J. P. Minnick, R. H. Mitchell, George Fleming and F. E. Brown, directors.

Tex., Plano.—Official: The First Guaranty State Bank chartered; capital \$30,000; E. A. Skiles, president; J. S. Aldridge, vice-president; R. M. Love, cashier, and J. I. Eason, assistant cashier. Business is to begin about May 1.

Tex., Rosebud.—Dispatches state that the Rosebud State Bank has begun business with directors thus: F. C. Schmidt, president; R. H. Waters, acting vice-president; B. Lowenstein, Jr., vice-president; W. J. Hales, cashier; J. W. Hamilton, George W. Clark, W. E. Bozeman, Henry Coker, John Kahler and J. E. Sides.

Tex., Robstown.—The First State Bank of Robstown, capital \$10,000, is reported organized with C. P. Allen president, L. Vickery vice-president, S. A. McIlhenny cashier; directors, Robert Driscoll, Jr., C. J. Allen, L. Vickery, James Brown, J. L. Jacobs, S. A. McIlhenny and Joe Hirsch.

Tex., Rochelle.—A State bank, capital \$15,000, is reported organized with J. T. Price president, W. H. Cottle vice-president and O. E. Rice cashier.

Tex., San Antonio.—A trust company capitalized at \$1,000,000 is reported being organized by V. M. Well, president of the Inter-trust National Bank of Boston, J. B. Stark, Harehill, Mass., and M. J. Ball of Boston, Mass. A number of local persons are also interested.

Tex., San Antonio.—The Southern Financial Co. is reported chartered with \$10,000 capital by James B. South, Arthur Beck and C. A. Lewis.

Tex., Spur.—The Farmers and Merchants' State Bank of Spur is reported incorporated with \$15,000 capital by H. P. Cole, J. F. Vernon, R. P. Cole and others.

Va., Castletown.—A new bank, capitalized at \$50,000, is reported organized in Russell county by R. A. Fletcher, president of the Merchants and Farmers' Bank of Castletown; R. C. E. Honaker, secretary and cashier, and J. M. Porter.

Va., Vinton.—The People's Bank, authorized capital \$50,000, is reported to have opened for business with C. C. Thomas of Roanoke, president; William Cook of Bonsack, vice-president, and J. W. Penn of Roanoke cashier.

Va., Roanoke.—The First Union Savings Bank is reported chartered; capital \$25,000 to \$100,000; T. T. Fishburne, president; J. C. Cassell, vice-president, and John Parker, cashier.

W. Va., Parkersburg.—The Trustee Co., capital \$100,000, is reported incorporated by C. T. Hiteshew, W. W. Walker, W. Vrooman, Edward Nelly and R. J. A. Boreman, all of Parkersburg.

NEW SECURITIES.

Ala., Athens.—Official: Fred Wall, Mayor, is receiving bids for \$11,000 of 5 per cent. 20-year bonds for funding floating debt and repairing electric plant; denomination \$500. Bonds were voted March 21.

Ala., Mobile.—Reported that an election is to be held in Mobile county November 8 to vote on \$500,000 of road bonds. Address County Commissioners.

Ala., Opelika.—Reported voted: \$85,000 of 5 per cent. 30-year water and light bonds. It is stated they will soon be placed on the market.

Ark., Warren.—The State National Bank of Little Rock is reported to have purchased at par \$40,000 of 6 per cent. bonds of Warren special school district.

Fla., Green Cove Springs.—The report that the New First National Bank of Columbus, O., had purchased \$45,000 of 6 per cent. electric-light, water-works, sewerage and street-improvement bonds has been officially confirmed; denomination \$1000.

Fla., Madison.—Official: May 10 an election is to be held in Madison county to vote on bonds. T. Z. Martin is Clerk.

Fla., Sanford.—N. W. Harris & Co. of New York are reported to have purchased at 104½ the \$120,000 of street-paving, bridge and school bonds.

Ga., Gainesville.—Voted: \$100,000 of water, sewer and light bonds.

Ga., Union City.—D. A. Carmical, Mayor, confirms the report that an election is to be held April 9 to vote on \$20,000 of school, street, water-works and electric-light 6 per cent. bonds; denomination, \$1000. If the election carries, bids will be received for bonds any time after April 10.

Ga., Waycross.—J. M. Cox, Mayor, writes that no decision has been reached as yet regarding the issuing of bonds.

Ky., Lexington.—John Skain, Mayor, writes that the bill providing for bonds for street improvements was not passed by the Legislature, and no vote on the issue can be taken now. The Allen law, which enables city to have improvements constructed on the 10-year plan of payment and authorizing city to guarantee the bonds was, however, passed by the Legislature. It is expected to do considerable work this year.

La., Baton Rouge.—Reported that an election is to be held in East Baton Rouge parish to vote on \$300,000 of courthouse, jail and road improvement bonds.

Md., Hagerstown.—Voted: \$30,000 of water-works bonds; Thomas Gillette is Burgess.

Miss., Meridian.—An official letter confirms the report that it is proposed to hold an election to vote bonds for street improvement, city hall, sewers, sidewalk, school and library building. J. W. Parker is Mayor.

Mo., Huntsville.—Reported that \$38,000 of 5 per cent. 5-20-year water and light bonds will be sold by the J. M. Hammette Banking Co., Huntsville. For information address J. B. Holman, City Clerk.

Mo., Joplin.—Official: Bids will be received by Robt. A. Wilson, secretary Board of Education, until April 20 for \$75,000 of 4½ per cent. 20-year school district building bonds voted March 28, 1910; denomination \$1000.

Mo., Kansas City.—Reported that bids will be received by the Kaw Valley Drainage Board until April 29 for \$1,225,000 of 5 per cent. 30-year bonds to improve Kaw River.

Mo., Malden.—Reported that an election is

to be held to vote on \$10,000 of improvement bonds.

Mo., Platte City.—The Wells Banking Co. of Platte City is reported to have purchased at par \$15,000 of 4 per cent. 5-30-year school-building bonds.

N. C., Burlington.—Reported voted: \$15,000 of street bonds.

N. C., Goldsboro.—The Bank of Wayne at Goldsboro was awarded the \$150,000 of 5 per cent. 40-year street-improvement bonds at a premium of \$7500.

N. C., Mebane.—Official: March 29 city voted \$15,000 of 6 per cent. 20-year street and sidewalk bonds; denomination \$1000; dated June 1, 1910. Bids for same will be opened at 3 P. M. May 16. J. T. Shaw is Mayor.

N. C., Statesville.—An official letter confirms the report that bids will be received at any time for \$50,000 of 5 per cent. 30-year bonds issued to aid construction of Statesville Air Line Railroad; denomination \$1000; dated January 1, 1910. Address D. M. Ausley, Commercial National Bank, Statesville.

Okla., Altus.—J. S. Moore, treasurer Jackson county, will, it is reported, receive bids until 2 P. M. April 15 for \$100,000 of 5 per cent. 11-30-year courthouse and jail bonds.

Okla., Enid.—Official: Bids will be received by the Board of Education until April 18 for \$300,000 of 5 per cent. 15-25-year high-school bonds; denomination, \$1000. W. M. Randall is president and J. P. Marshall clerk.

Okla., Krebs.—Official: The city has sold to T. C. Brooks, Son & Co. of Jackson, Mich., \$50,000 of 5 per cent. 25-year water-works bonds; denomination, \$1000; dated February 1, 1910.

Okla., Medford.—Official: Bids will be received by D. L. Cline, president Board of Trustees, until April 4 for \$18,000 of electric-light plant and \$12,000 of water-works extension 6 per cent. 25-year bonds; denomination \$500. C. W. Stephenson is clerk.

N. C., Whiteville.—Official: February 17 city voted \$25,000 of 6 per cent. 20-year street-improvement bonds, and bids for \$10,000 will be received until May 16 by W. E. McDaniel, clerk and secretary; denomination \$500; dated June 1, 1910. W. Ross Davis is Mayor.

Okla., Bristol.—Reported voted: \$10,000 of city hall, \$7500 water-works extension, \$9500 of water-works refunding, \$18,000 of sewer and \$5500 of street-improvement bonds; total \$50,500.

Okla., Clinton.—Bids will be received until 8.30 P. M. April 19 by C. C. Smith, City Clerk, for \$25,000 of 5 per cent. 25-year city hall bonds. C. G. Welch is Mayor.

Okla., Oklahoma City.—April 5 a special election is to be held to vote on \$375,000 of park, fire station and other improvement bonds. Henry M. Scales is Mayor.

S. C., Bennettsville.—Bids will be received by J. M. Jackson, chairman of the Board of Trustees, until noon May 2 for \$25,000 of 4½ per cent. 20-year bonds; denomination, 1000; dated July 1, 1910.

S. C., Blacksburg.—The town is reported to have sold at par \$15,000 of bonds for streets, electric lights and to retire part of \$10,000 school-bond issue.

S. C., Chester.—An official letter says that an election will probably be held next month to decide question of issuing school district bonds not exceeding \$15,000.

S. C., St. Matthews.—Official: School District No. 8 of Calhoun county has voted \$15,000 of 5 per cent. 20-year school-building and equipping bonds; denomination, \$500. Address J. H. Loryea, clerk.

S. C., Waverly.—Local parties are reported to have purchased at par \$20,000 of 5 per cent. school-building bonds of district No. 12.

Tenn., Covington.—Official: Bids will be received at once for \$20,000 of 5 per cent. 30-year street-improvement bonds voted March 14; denomination \$1000; dated April 15, 1910. Address W. V. Bringie, Mayor.

Tenn., Humboldt.—W. B. Troy & Co., Memphis, are reported to have purchased at par \$30,000 of street bonds.

Tenn., Johnson City.—Official: Bids will be received until 7.30 P. M. April 5 by E. E. Ellsworth, City Treasurer, for \$375,000 of 5 per cent. 30-year water-works bonds; dated June 1, 1910; denomination, \$1000.

Tex., Alvarado.—Reported voted: \$18,000 of high-school bonds.

Tenn., Lafayette.—Reported that the question of issuing \$40,000 of bonds for electric-light plant and water-works system is under consideration.

Tenn., Obion.—Official: Bids will be received until May 4 by the Board of Mayor and Aldermen for \$30,000 of light and water.

[For Additional Financial News, See See Page 90.]

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GEO. M. CLARK
 Auditor and Public Accountant
 Room 315 James Building
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 FRED'K E. NOLTING, 1st Vice-President.
 T. K. SANDS, 2d Vice-President and Cashier.
 H. A. WILLIAMS, Assistant Cashier.
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 R. VINTON LANDALE, Cashier.
 WM. J. DELCHER, Asst. Cashier.
 C. G. MORGAN, Asst. Cashier.

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\$10,000 of school and \$5000 of street and sidewalk 5 per cent. 5-20-year bonds. A. Wilson is Mayor.

Tex., Alice.—Reported that the election to vote on \$15,000 of water-works, \$10,000 of city hall and \$5000 of street-improvement bonds will be held April 16.

Tex., Amarillo.—Reported voted: \$75,000 of street improvement, \$40,000 of sewer and \$10,000 of fire-department bonds.

Tex., Austin.—The Attorney-General has approved the following bonds: \$10,000 of 5 per cent. 20-40-year Pasadena independent school district schoolhouse bonds; \$16,000 of 5 per cent. 40-year Harris county school district No. 25 schoolhouse bonds; \$20,000 of 4 per cent. 10-40-year Stonewall county road and bridge improvement bonds; \$25,000 of 5 per cent. 10-40-year Waller county district No. 1 road-improvement bonds; \$8000 of 5 per cent. 10-30-year Jacksonville water-works bonds; \$16,000 of 5 per cent. 20-40-year Center water-works bonds; \$3000 of 5 per cent. 5-20-year Lipscomb County common school district No. 1 schoolhouse bonds; \$25,000 of 5 per cent. 20-40-year Hood county road district No. 1 improvement bonds; \$27,500 of 5 per cent. 10-40-year Jacksboro water-works bonds; \$10,000 of 5 per cent. 20-40-year Rotan city hall bonds.

Tex., Austin.—The State Board of Education is reported to have purchased the following securities: \$500 of Aquilla, \$7000 of Sunset, \$12,000 of Bowie, \$10,000 of Quanah, \$17,000 of Angleton, \$10,000 of Sweetwater and \$8000 of Garza independent school district bonds; \$12,500 of Wilbarger county and \$6100 of Fisher county school bonds; \$10,000 of Terrell light and water-works improvement and \$15,000 of Eagle Lake school bonds.

Tex., Austin.—Official: March 18 city voted \$75,000 of 5 per cent. schoolhouse bonds. A. P. Wooldridge is Mayor.

Tex., Celina.—Official: \$3000 of bonds have been voted.

Tex., Center Point.—Geo. E. Thomas, secretary School Board, writes: "Our bond issue is tied up indefinitely."

Tex., Fort Worth.—John L. Terrell, County Judge, confirms the report that he will receive bids until noon April 28 for \$250,000 of 5 per cent. 20-40-year drainage and improvement bonds of Fort Worth Improvement District No. 1, Tarrant county; denomination, \$1000; dated March 1, 1910; bonds voted July 20, 1909.

Tex., Granger.—Reported voted: \$15,000 of street-improvement bonds.

Tex., Hillsboro.—Voted: \$40,000 of street-paving bonds.

Tex., Marathon.—Reported voted: \$6000 school bonds.

Tex., Paducah.—Official: Bids will be received on May 1 by the County Judge for \$196,000 of 5 per cent. 20-40-year Cottle county common school district No. 1 schoolhouse bonds; dated January 1, 1910.

Tex., Plainview.—Reported voted: \$20,000 of school-building bonds.

Tex., Tomball.—Reported that \$6000 of school district building bonds have been voted.

Tex., Waco.—Seasongood & Mayer of Cincinnati are reported to have been awarded at 105.19 and accrued interest the \$140,000 of school-building and \$35,000 of park 5 per cent. 30-year bonds.

Va., Portsmouth.—Woodin, McNear & Moore Company of Chicago is reported to have been awarded at \$102.55 and accrued interest the \$140,000 of Norfolk county 5 per cent. 20-year school bonds.

W. Va., Beckley.—Reported that Lucien H. Davis, Mayor, will receive bids at any time for \$60,000 of 5 per cent. 10-30-year street-improvement bonds.

W. Va., Keyser.—Reported defeated: \$20,000 of water-works improvement bonds.

W. Va., Middlebourne.—Dates for holding elections in several districts in Tyler county to vote on railway aid bonds have been fixed as follows: Ellsworth district, April 30; McElroy, May 7; Centerville, May 14; Lincoln, May 21.

At Obion, Tenn., bids will be received until May 4 for \$45,000 of 5 per cent. 5-20-year light, water, school and street bonds. Further particulars will be found in the advertising columns.

At Whiteville, N. C., bids will be received until May 16 for \$10,000 of 6 per cent. 20-year street-improvement bonds. Further particulars will be found in the advertising columns.

At Paducah, Tex., bids will be received until May 1 for \$196,000 of 5 per cent. 20-40-year Cottle county common school district No. 1 schoolhouse bonds. Further particulars will be found in the advertising columns.

FINANCIAL NOTES.

The Citizens' Bank of Quitman, Ga., will, it is reported, increase its capital from \$50,000 to \$100,000.

The People's National Bank of Brunswick, Md., is doing business in its new building on High street.

The Peninsula Bank of Williamsburg, Va., according to a report, will establish a branch in Yorktown, Va.

The First National Bank of Hagerstown, Md., has occupied its new building on West Washington street.

The Citizens' State Bank of Alvin, Tex., is reported to have increased its capital from \$10,000 to \$25,000.

The Continental State Bank of Petrolia, Tex., has, it is reported, increased its capital from \$10,000 to \$15,000.

The Interstate Life & Accident Co. of Chattanooga, Tenn., is reported to have increased its capital from \$100,000 to \$300,000.

The Raleigh Savings Bank of Raleigh, N. C., is reported to have changed its name to the Raleigh Savings Bank & Trust Co.

The Citizens' National Bank of Washington, Ga., is reported to have decided to increase its capital to \$100,000.

The Maryland Bankers' Association will hold its annual meeting in the Blue Mountain House, Blue Mountain, Md., June 21, 22 and 23.

The conversion of the People's Bank of Martinsville, Va., into the People's National Bank of Martinsville has been approved; capital \$80,000.

The annual convention of the Alabama Bankers' Association, which was to have been held at Birmingham May 13 and 14, has been postponed until May 20 and 21.

The Pinellas Bank & Trust Co. of St. Petersburg, Fla., says a dispatch, has changed its name to the American State Bank. Business is expected to begin about June 1.

The Security Life & Accident Co. of Birmingham, Ala., according to press dispatches, has changed its name to the Interstate Fire Insurance Co. and increased its capital from \$25,000 to \$500,000.

A condensed statement of 187 banking institutions in Louisiana at close of business March 8, 1910, shows total resources, \$110,268,439; loans and discounts, \$61,967,774; due from banks and bankers, \$18,548,745; capital stock paid in, \$13,413,100; surplus, \$7,766,642; undivided profits, less expenses, etc., paid, \$2,100,948; due to banks and bankers, \$10,869,332; individual deposits, \$67,226,830; time and demand certificates of deposit, \$5,064,901.

The Southern Trust Co., organization of which was reported February 10, deals in real estate, stocks, bonds, etc.; acts as guardian, administrator, trustee or in any other fiduciary capacity; conducts an insurance business, etc., at Hawkinsville, Ga. The company has a capital of \$100,000 paid in, and the officers are: T. B. Ragan, president; E. J. Henry, vice-president; H. E. Coates, secretary and treasurer, and J. H. Vaughn, assistant secretary and treasurer.

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CONDENSED REPORT TO COMPTROLLER The First National Bank of Birmingham, Ala. ALABAMA'S FIRST MILLION-DOLLAR BANK

TUESDAY, MARCH 29, 1910.

RESOURCES.		LIABILITIES.	
Loans and Discounts.....	\$6,983,514.81	Capital Stock.....	\$1,000,000.00
Overdrafts.....	542.32	Surplus and Profits.....	878,096.75
U. S. Bonds and Premiums.....	1,120,500.00	Circulation.....	988,700.00
Other Stocks and Bonds....	208,100.00		
State of Alabama Bonds....	157,500.00		
		DEPOSITS.	
		Individual.....	\$7,393,780.68
		Bank.....	1,298,697.30
		United States..	97,249.90
			\$8,789,727.88
			\$11,656,524.63

UNITED STATES DEPOSITARY

Officers:

W. P. G. HARDING, President.

J. H. WOODWARD, Vice-President.

J. H. BARR, Vice-President.

THOMAS HOPKINS, Cashier.

F. S. FOSTER, Assistant Cashier.

THOS. BOWRON, Assistant Cashier.

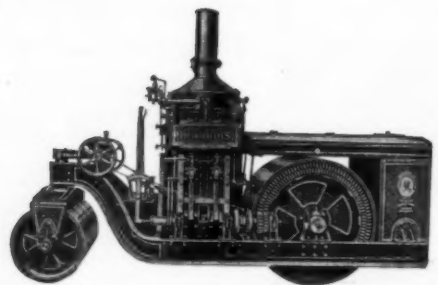
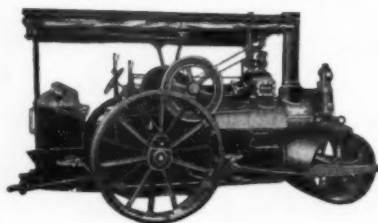
J. E. OZBURN, Secretary Savings Department.

The First National Bank of Birmingham, in its daily routine, touches every line of industry and reaches into every county in the State; therefore, a statement of the bank is recognized as a barometer of business conditions in Alabama.

Attention is invited to the official statement rendered to the Comptroller of the Currency, which shows larger deposits and greater total resources than have appeared in any statement hitherto published by this bank. These figures are impressive, and reflect the revival of trade and the sound conditions now prevailing, as well as the confidence placed by the public in this institution.

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FIFTEEN YEARS EXPERIENCE
BUFFALO, N. Y.

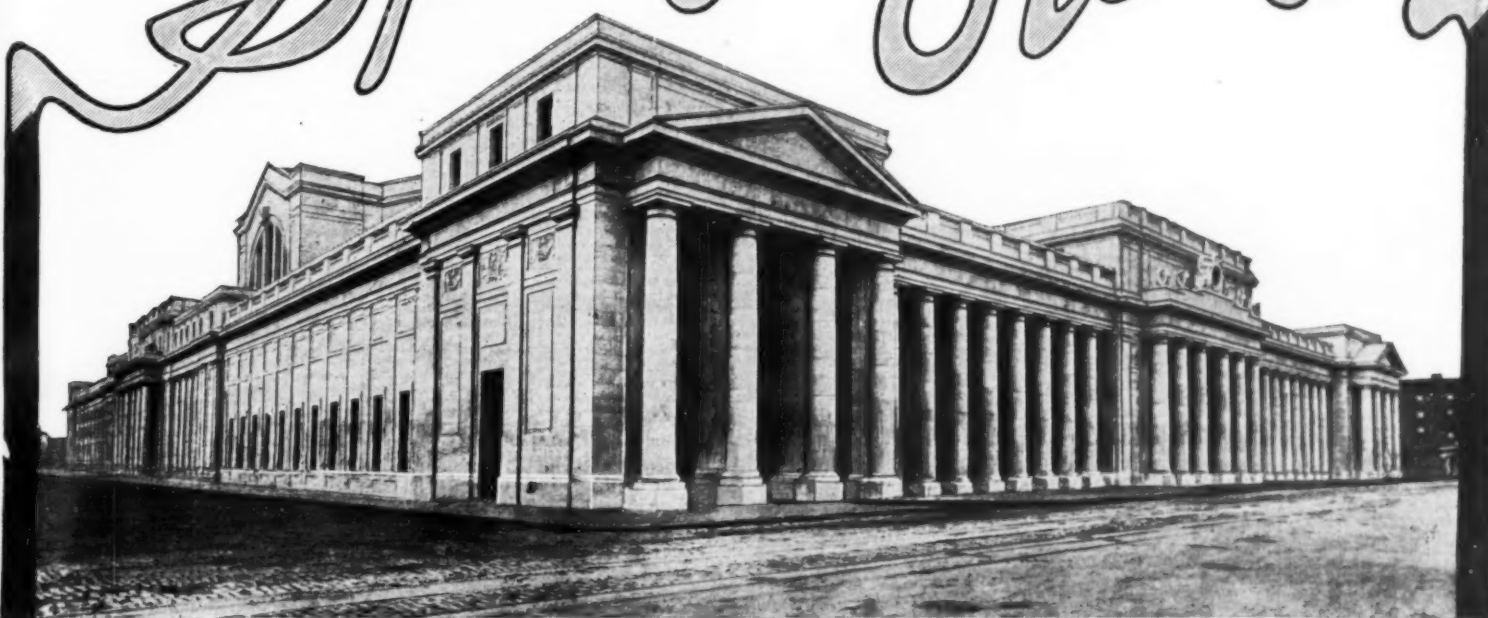
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Pennsylvania R. R. Terminal

THE Pennsylvania Railroad Terminal in New York City is the central feature of an improvement whose total cost will reach \$100,000,000. It is a magnificent structure built for efficiency, almost regardless of cost.

It is covered with a Barrett Specification Roof, with vitrified tile surface.

Would such a roof have been used on this magnificent, modern, fireproof structure if anything better could be obtained at any price? Surely not.

The fact is, a Barrett Specification Roof is the most economical roof covering yet

devised. And it has a record of 50 years of satisfaction behind it.

In addition to the great roof, the foundations are waterproofed with Coal Tar Pitch and Felt--the same materials as are used in Barrett Specification Roofs.

In a small part of the first section of the tunnel a substitute for pitch was tried but quickly abandoned.

About 4,000,000 pounds of Barrett's pitch were used for underground work and roofing.

The Barrett Specification should be in the hands of every architect, engineer and owner of buildings. Copy of it free on request.

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Trenton Engine Co.	8
Triumph Electric Co.	150
Triumph Ice Machine Co., The	14
Troy Wagon Works Co.	122
Trump Co., The	135
Trussed Concrete Steel Co.	24
Tucker & Laxton	25
Taylor Boiler Mfr. Co.	5
Tulsa Commercial Club	148

U

Union Iron Works Co., The	105
Union Mining Co.	4
Union Steam Pump Co.	119
Union Sulphur Co.	30
United Roofing & Mfg. Co.	45
United States Cast Iron Pipe & Foundry Co.	134
United States Equipment Co.	103, 105
United States Gypsum Co.	49
United States Rail Co.	109
U. S. Wood Preserving Co.	2
Universal Portland Cement Co.	24
Universal Road Machinery Co.	115

V

Vacuum Engineering Co.	42
Valix & Murdoch Iron Works	52
Van Winkle Gin & Machine Co.	142
Victor Manufacturing Co.	47
Vitrol Manufacturing Co.	15
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War Department	97
Warren-Khret Co.	45
Watson-Stillman Co.	6
Weather-Proofing Nail Co.	44
Weir Frog Co.	104
Wells, A. J.	100
Westbrook Elevator Co.	29
Western Electric Co.	151
Westinghouse Electric & Manufacturing Co.	9
Westinghouse Machine Co.	109
West Pascagoula Casing Works	131
West Virginia Rail Co.	102
Weatherill & Co., Inc., Robt.	5
Wheeler Cond. & Eng. Co.	10
Wheelock Engineering Co.	25
White, Gilbert O.	25
White, James F.	100
White & Co., J. G.	25
Whitin Machine Works	144
Whitting Foundry Equipment Co.	24
Whittinsville Spinning Ring Co.	141
Whitlock Coil Pipe Co.	10
Whitted & White, Inc.	25
Wicks Bros.	100
Wight & Co., W. M.	132
Williams Bros.	134
Williams Co., The G. H.	118
Williams Patent Crusher & Pulverizing Co., The	82
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Williamson Bros. Co.	137
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York Manufacturing Co.	14
York Safe & Lock Co.	162
Young & Selden Co.	90
Youngstown Sheet & Tube Co.	38

Z

Zelnicke Supply Co., Walter A.	103
Zimmermann Steel Co.	189

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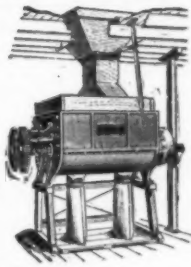
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The "Kewanee" Principle—brass to iron thread connection and brass to iron ball joint seat—has received the stamp of hearty approval as evidenced by the increasing list of users.

There are, however, other fittings made with the "KEWANEER" Principle. Besides the "KEWANEER" UNIONS there are "Kewanee" Union Ells and Tees; "Kewanee" Flange Unions; "Kewanee" Boiler Couplings; "Kewanee" Air Pump Unions; "Kewanee" Air Drill Unions; also a line of "Kewanee" Union Valves.

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- Brass to iron ball-joint seat; the nuisance known as a gasket is eliminated, and a tight seal assured by using a hard against a soft metal.
- All "Kewanee" Fittings are tested with compressed air under water—the slightest leak shows in the form of a bubble, and a leak sends such defective fittings to the scrap pile as a destination. There are no "seconds" in the "Kewanee" family.
- The "Kewanee" Principle involves solid parts—no inserted pieces.

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NATIONAL TUBE COMPANY, 305 Frick Building, Pittsburgh, Pa.

Gentlemen: Won't you send me that copy of "THE WHOLE KEWANEER FAMILY" booklet which you have reserved for me?

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WANTED—A first-class solicitor to work among the colored trade principally, in city of 25,000 population. An A. No. 1 hustler can make a fine salary. None but a hustler need apply. Reap & Crawford Furniture Co., Pine Bluff, Ark.

LIVE-WIRE SALESMEN calling on manufacturers' trade; large profits; small samples; quick sales. Fairfax Refining Co., Cleveland, Ohio.

WANTED—Energetic man with knowledge of hydraulics to travel in the South for an established water-wheel firm; man of middle age preferred. Address No. 397, care Manufacturers' Record.

WANTED—Salesmen calling on hardware trade to sell porcelain numbers and letters as a side line; liberal commission; something new; exclusive territory and commission on re-orders; pocket samples weigh 12 ounces. Address, with reference, The Cambridge Tile Mfg. Co., Covington, Ky.

WANTED—Good live, practical men to sell the "Turbo Blower," the most efficient and up-to-date machine for producing mechanical draft. This is an item which can be used to advantage in any power plant; liberal commission allowed. We have still unassigned some good territory. Write for particulars, stating qualifications. Turbo Blower Co., Hudson Terminal, New York.

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WANTED—The selling agency for a good specialty, patented article or special line of goods by an experienced salesman and manager; will pay prompt cash. Address P. O. Box 2358, Boston, Mass.

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WANTED—Manager for a small sawmill in Texas, salary \$1500; also secretary for a lumber company, salary \$1500; give age and experience. American Opportunity Co., Houston, Texas.

WANTED—SUPERINTENDENT water plant, \$2000; electric plant, \$2400; ice plant, \$1800; sawmill, \$1800; engineer, \$2000; those who can invest preferred; architectural draftsman, \$175; assistant, \$75; machinist, \$100. Business Men's Clearing-house, Houston, Texas.

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LYNCHBURG, VIRGINIA, WILL DONATE A FREE MANUFACTURING SITE for stove factory, implement factory, factory for making shoe lasts or findings, or branch factory of any kind employing skilled labor. Lynchburg is the market of the South; ranks fifth in the United States in distribution of shoes; employs 600 traveling salesmen, selling \$42,000,000 worth of goods annually; shoe business increased from nothing to \$12,000,000 in 21 years; built first factory in 1901; now has five, with daily capacity of 18,000 pairs; power as low as \$20 per H. P. a year. Local capital will become interested. Need a hat factory, knitting mill for underwear and hosiery, or an overall factory. Second market in the United States for cast-iron pipes. Address Dept. X, Chamber of Commerce, Lynchburg, Va.

WANTED—Manufacturers' agents in all sections of the country to send us plans and specifications for estimates on slate and tile roofing, on a liberal commission arrangement. Address Kansas City Slate & Tile Roofing Co., 21st and Forest Ave., Kansas City, Mo.

LIST YOUR TIMBER with us; we can handle it, but we cannot undertake to sell it for an unreasonable price. If you make prices right we can find a buyer. Branchville Timber Co., Branchville, Va.

EAGLE PASS, TEXAS, proposes to build modern hotel; cost \$50,000 to \$75,000; local capitalists will subscribe half in cash; good hotel man wanted to promote the enterprise. Address Jos. O. Boehmer, Sec. Eagle Pass Industrial League.

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NEW EXCHANGE HOTEL, block of Union depot and postoffice, Waco, Texas; remodeled and refurbished; every provision for guests' comfort; best service. A. D. Adams, Prop'r.

LOCATION WANTED

LOCATION WANTED.—A reputable, growing concern, manufacturing a line of large special machinery, pay-roll from \$40,000 to \$60,000 annually (employees mostly married), desires location and inducements to move from present quarters; straightforward business proposition, involving free site and underwriting a stock issue of \$50,000. Correspondence desired with live commercial organization. Address No. 599, care Manufacturers' Record.

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LOCATION FOR TILE AND SEWER-PIPE PLANT.—Good town on Seaboard Air Line Railway offers a material suitable for the manufacture of tile and sewer pipe; material, coal site in immediate proximity to each other, with good railroad facilities. Address J. W. White, General Industrial Agent, Seaboard Air Line Railway, Norfolk, Va.

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WANTED—FACTORIES.—We will furnish free sites, free glass sand, high grade, good for table ware or window, and four-cent gas. Our plants are on the Coal & Coke Railroad. Frenchton Oil & Gas Co., Buckhannon, W. Va., Ernest Phillips, Secy. and Treas.

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COLEMAN, TEXAS, wants a cotton mill located there, and wants to get in correspondence with people who can put it in and do the work. We are located in the center of a fine cotton-producing country and have good railroad facilities for handling the raw material and finished product. This county was twelfth in the production of cotton in the State of Texas in 1908. We can control from this and adjoining counties 250,000 bales and can get 400,000 if we go after it. Call on or address Coleman Commercial Club, Coleman, Texas.

ABILENE, TEXAS, wants a cotton mill; inexhaustible supply of pure water; steam coal at \$1.50 per ton; splendid shipping facilities; near the geographical center of the State; one-quarter million bales of cotton produced within a radius of 45 miles of the city last year. Address Abilene 25,000 Club, Box 537.

CANNING FACTORIES

CANNING FACTORY WANTED.—No promoters or hot-air men, though, need answer. If you are a practical canner and have some means of your own and will bear the closest investigations, Texarkana will join you in establishing a canning factory. We have fine distributing point; natural-gas fuel; plenty of truck growers; fine peach orchards surrounding. In answering, state capital you have, give references and amount of capital wanted. When you can look field over, address Boosters' Club, Texarkana, Ark.-Tex.

CANNING FACTORY.—Fine opening for a canning, preserving and pickle factory for canning all kinds of vegetables, putting up pickles and making catsups of various kinds, in town of 4500 population, with three trunk lines of railway, surrounded by fine farming lands producing all kinds of vegetables and many kinds of fruits, especially figs and oranges. Nothing of the kind here at present. Address Ten Thousand Club, Bay City, Texas.

CREAMERY

WAXAHACHIE, TEXAS, wants a creamery; has 10,000 population, and 80,000 in the county, with 1,276,000 within a radius of 100 miles; Ellis county produces more cotton than any other county in the world; with railroads radiating in five directions and reaching many populous cities; in the famous alfalfa belt of Texas; with an abundance of pure water, fine water-works and sewerage system; now spending \$250,000 on macadamized roads within a radius of 10 miles and leading into the city; with at least 1000 good milk cows to start on within a radius of five miles, and this number would possibly be quadrupled within a short time. Waxahachie has many beautiful homes, 10 church edifices; is the home of Trinity University; public high school affiliated with State University. To a competent, practical man, liberal inducements will be offered by the citizens of Waxahachie for the location of a good creamery here. Interested parties will receive full information by addressing Roy Connally, Secty. Waxahachie Com'l Club, Waxahachie, Texas.

HOTEL WANTED

MINERAL WELLS, TEXAS.—One of America's greatest resorts for the treatment and care of people afflicted with Bright's disease, rheumatism, stomach, liver, kidney and bladder troubles; with 150,000 visitors annually; has sixty hotels and large boarding-houses now in operation. We need a modern hotel with from 300 to 500 rooms, built and equipped to cater to a high-class patronage, and we can show that such a hotel will pay. We wish to correspond with parties experienced in this line of endeavor desiring this kind of investment. Some local capital could be interested. Address C. W. Wilson, President Commercial Club, Mineral Wells, Texas.

FURNITURE FACTORY

FURNITURE FACTORY.—Free site and liberal stock subscriptions for location of furniture factory of any kind. Abundance of raw material and unexcelled transportation facilities. Address Chas. R. Rowe, Secretary Lufkin Progressive League, Lufkin, Texas.

BEDSPRING FACTORY

BEDSPRING FACTORY WANTED because we have a fine distributing point, cheap labor, and you will make money here. Address Boosters' Club, Texarkana, Ark.-Tex.

CAN FACTORY

WHY DON'T YOU manufacture shipping cans in Houston, Texas? Great opportunity; large quantities shipped in for local consumption; one plant alone consumes 100 carloads annually; other consumers are six coffee-roasting plants, two wholesale preserving plants and two wholesale drug houses; truck and fruit growers also large consumers. The right time to get in is now. Write for information to Adolph Boldt, Secretary Houston Business League, Houston, Texas.

COTTONSEED-OIL MILL

LOCATION FOR COTTONSEED-OIL MILL. The citizens of a thriving little town in Georgia, on the Seaboard Air Line Railway, are anxious for a cottonseed-oil mill, and will subscribe \$15,000 to \$20,000 for the establishment of such an industry if an experienced oil-mill man will invest a like amount; location in center of cotton district, and abundant seed supply is available. Full information on request. J. W. White, General Industrial Agent, Seaboard Air Line Railway, Norfolk, Va.

STEAM LAUNDRY

ITASCA, TEXAS, a town of 3500 people, with a trade territory containing a population of 15,000, wants an up-to-date steam laundry with sufficient capacity to handle the business; country is peopled by prosperous, progressive people, who are strong believers in "home industry." Itasca has \$150,000 cotton mill, \$125,000 oil mill, roller mills, light plants, a large woman's college, will soon begin the erection of a \$35,000 high-school building, and has a great deal of money invested in churches. Address Board of Trade, Itasca, Texas.

JOBGING HOUSE

JOBGING HOUSES WANTED.—In a city of 25,000, in a rich territory, well supplied with transportation facilities, jobbing houses in shoes, hats and caps, dry goods, men's clothing and in tinware are wanted. The opening is a good one. Refer to File 21,561. M. V. Richards, Land and Industrial Agent, Southern Railway, 1309 Pennsylvania avenue, Washington, D. C.

QUEENSWARE HOUSE

WHOLESALE QUEENSWARE HOUSE wanted in Texarkana, the best distributing point in the Southwest. Why? Address Boosters' Club, Texarkana, Ark.-Tex.

TRUNK FACTORY

TRUNK FACTORY WANTED in Texarkana; cheap labor; raw materials; finest distributing point in Southwest. Address Boosters' Club, Texarkana, Ark.-Tex.

MISCELLANEOUS

NAVASOTA, TEXAS.—With railroads radiating in eight directions and prospective navigation to deep water, and with a sufficient quantity of raw material at hand to secure the successful operation of the following manufacturing enterprises, we feel warranted in inviting the attention of business men to invest with us in the following: Cotton-yarn mill, pressed-brick plant, and creamery for one thousand cows. Address J. J. Felder, Navasota, Texas.

THE CITY OF FLORENCE, S. C., in the center of the great cotton and tobacco region of the Pee Dee section of South Carolina, has attractive propositions to offer for a brick-manufacturing plant, a carriage and wagon factory, a machine shop and foundry, lumber and woodworking plant; finest distributing point in the State, with unsurpassed railroad facilities; abundance of good brick clay. Such plant could control output in this the finest agricultural region in the Southeast. Correspondence solicited by the Florence Board of Trade.

FACTORIES WANTED.—Special inducements for manufacturing plants, particularly small industries, using wood, cotton or iron raw materials; mild, healthful climate; cheap freights, fuel, labor and living expenses. We mean business and will do our part. Business League, Columbus, Miss.

LYNCHBURG, VIRGINIA, WILL DONATE A FREE MANUFACTURING SITE for stove factory, implement factory, factory for making shoe lasts or findings, or branch factory of any kind employing skilled labor. Lynchburg is the market of the South; ranks fifth in the United States in distribution of shoes; employs 600 traveling salesmen, selling \$42,000,000 worth of goods annually; shoe business increased from nothing to \$12,000,000 in 21 years; built first factory in 1901; now has five, with daily capacity of 18,000 pairs; power as low as \$20 per H. P. a year. Local capital will become interested. Need a hat factory, knitting mill for underwear and hosiery, or an overall factory. Second market in the United States for cast-iron pipes. Address Dept. X, Chamber of Commerce, Lynchburg, Va.

FREE—Industrial review of Muskogee, Oklahoma. If you are looking for a safe, judicious investment, good location or useful information, you will appreciate this book. It's full of meat. A card will bring it. Write today, Muskogee Townsite Co., Muskogee, Okla.

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